

CURRICULUM VITAE
HARRY B. RADOUSKY
Lawrence Livermore National Laboratory
Radousky1@llnl.gov, 925-422-4478

HONORS

- Fellow of the American Physical Society
- Science Citation Classics - among the top 10 cited works in Materials Science for the decade 1992-2002 <http://in-cites.com/papers/DrHarryRadousky.html>.
- LLNL Chem. and Material Science Associate Director Award (March, 2004): For 3 outstanding papers on optical materials published in Physical Review Letters within 9 months.
- Who's Who in America Science and Engineering, 5th, 9th, 10th Editions
- Who's Who in America, 62nd, 63rd Edition (2008, 2009)

Professional Experience

1982 – Present Physicist Lawrence Livermore National Laboratory

Shock Physics PI: 1982 – 1988

I was responsible for all aspects of design and implementation of shock temperature measurements on metals, insulators and simple molecular fluids important to planetary physics and relevant to LLNL programs. This included the discovery of shock-induced cooling in liquid nitrogen. This work resulted in 9 journal articles including one PRL and one Science article.

Superconducting Properties: 1988 – 1996

I was responsible for integrating across a diverse set of experiments to elucidate the mechanism of High T_c superconductivity. My research efforts included extensive Raman investigations of a variety of High T_c materials as well as a broad set of magnetic, electronic and thermal experiments to understand the effects of Pr in depressing T_c in $YBa_2Cu_3O_7$. A review article I wrote on this topic was among the top ten cited (currently 449 citations) material science publications for a 10 year period. This work was the start of my strong collaboration with the UC-Davis Physics Department, and resulted in 38 journal articles.

Laser Induced Damage in Optical materials: 1996 – 2006

This was a research program I initiated to understand the physical underpinnings of laser damage in NIF relevant optical materials. Two of my UC-Davis Ph.D. students Wren Carr (2003) and Paul DeMange (2006), and a post-doc (Stavros Demos) are now all career physicists at LLNL and worked with me in this area of laser matter interactions in optical materials. Our research involved many collaborators in the NIF program, and resulted in 25 published journal articles, including 3 PRLs, 3 Optics Letters, and 3 APLs.

The 3 PRLs particularly illustrate several of the important advances that were made. In the 2003 paper "Electron-or Hole-assisted Reactions of H Defects in Hydrogen-bonded KDP", I collaborated with theorists to calculate the effects of defects in KDP and compare with experimental results. We were able to show that intrinsic hydrogen defects played a crucial role in the mechanisms of laser-induced damage in this material.

In the 2003 paper "Wavelength dependence of laser-induced damage: Determining the damage initiation mechanisms" we made the first wavelength dependent measurements of the laser

damage thresholds. This allowed us to confirm that multiphoton effects played a key role in the damage mechanisms.

In the 2004 paper “Localized dynamics during laser-induced damage in optical materials”, we made the first temperature measurements during an actual laser-induced damage event. The results showed that during damage the material reached a temperature of approximately 1 eV (11,600 K), with temperatures ranging from 10,000 K to 12,000 K for different materials. These three results were published within a nine month period, and were influential in changing the way people thought about the physical process of laser damage in optical materials.

Responsible Scientist (DANTE) – National Ignition Facility: 2010 - 2011

One theme running through the past 17 years of my career is the National Ignition Facility. In addition to the work on laser damage discussed above, and my administrative role in NIF discussed below, I returned to research full time in March, 2010 to participate in the National Ignition Campaign (NIC). Specifically, I took on the role of Responsible Scientist for the NIF DANTE spectrometer and as a NIC Co-Experimentalist. In this role I measured x-ray flux and temperatures from NIC hohlraum experiments and tracked the hohlraum soft x-ray energetics.

Indirect drive ignition on the National Ignition Facility (NIF) utilizes a sequence of four shocks to compress a spherically-shaped fuel capsule within a laser heated gold hohlraum target. The soft x-ray power diagnostic DANTE, provides the important capability of measuring the spectrally and temporally resolved absolute x-ray emission flux from the hohlraum. Up to 18 x-ray diodes are fielded on DANTE which allows continuous spectral coverage from 50 eV to 20,000 eV. This spectral range fully covers the black body radiation and the characteristic M-band and L-band emission from the high-Z target.

Energetics experiments on NIF produce over 10 TW/sr of peak x-ray flux which corresponds to peak radiation temperatures near 300 eV (3.5 Million Deg. K). I took successful Dante data on 30 NIC shots in the shock tuning campaign (September, 2010 – February, 2011). This data was included in the 2011 PRL “Demonstration of Ignition Radiation Temperatures in Indirect-Drive Inertial Confinement Fusion Hohlraums,” as well as the 2012 PRL “Precision Shock Tuning on the National Ignition Facility”.

The Dante measured flux and radiation temperature are correlated with measurements of important shock parameters such as the break out times and shock velocity for the complex shock timing sequence. I presented at the 2011 Shock Compression of Condensed Matter Conference in Chicago the results of analyzing the Dante shock timing results and comparing them with direct VISAR data. This allowed us to show how recent Dante data can improve confidence in tuning adjustments to the laser and target parameters for achieving ignition.

Energy Harvesting, Magnetic Materials, Nano-Materials, Desalination: 2002 - Present

I have been developing nano-structured, magnetic and solar materials for energy harvesting. My particular interest is in the area of multi-ferroic materials and compound thermoelectrics, but my general interest spans a broad set of experimental activities in this area. I am interested in both the fundamental material science underlying energy harvesting devices, as well as device-design innovations that lead to higher efficiency energy harvesting or conversion technologies. My most recent work has demonstrated the use of piezoelectric nanowires in patterned configurations to harvest both mechanical and thermal energy. Related to the topic of energy harvesting, I have organized three symposia at recent MRS meetings: Spring 2008 MRS, Fall 2009 and Spring 2011 which were extremely successful, and a symposium focusing on nanomaterials in energy

harvesting has been proposed for the Spring, 2014 meeting. A recent invited review article I wrote in collaboration with Hong Liang (TAMU) reviews the field of energy harvesting from an integrated point of view, and since its publication in December, 2012 has had 6,432 downloads to date.

Extreme Chemistry: 2013 – Present

I am performing ultrafast shock experiments and Diamond Anvil Cell experiments on energetic materials and metals.

1991 - Present Adjunct Professor Department of Physics, UC-Davis

1991-1997 – Adjunct Associate Professor. Promoted to Adjunct Professor in 1997.

My position as Adjunct Professor has given me the opportunity to promote interactions between Lawrence Livermore National Laboratory (LLNL) and the UC system in general, and with UC Davis in particular. I feel very strongly that the teaching aspect of the Adjunct Professorship is an integral part of this relationship. Teaching has always been important to me, and I have been privileged to be able to have taught over the past three decades both graduate and undergraduate courses in solid state physics, materials science and the physics of baseball. The later course is very interesting since it combines both mechanics and fluid dynamics.

My recent Ph.D. student, Avi Thomas completed his thesis in conjunction with the Center for Accelerator Mass Spectrometry (CAMS) at LLNL. Avi is developed a new type of interface for HPLC interface with the AMS machine. The interface's success was directly due to application of physics techniques, particularly in the area of the fluid dynamics of drop formation. Overall this work will vastly sped up the process of analyzing samples for pharmacokinetic and cancer studies using accelerator mass spectrometry.

2013 - 2014 Visiting Scientist, University of Illinois, Urbana/Champaign

I was on Professional Research or Teaching leave at UIUC from July 1, 2013 – June 30, 2014. While at UIUC I am working in the Illinois Applied Research Institute (ARI). Individual projects included working with Professor Logan Liu in the Electrical and Computer Engineering Department on nanomaterials for energy harvesting and desalination as well as with Professors Laura Greene and James Eckstein on Rapid Development of New Materials for energy applications.

2009 – 2010 Program Manager – Visiting Scientists Program LLNL

I was in charge of the LLNL Visiting Scientist Program, including all aspects related to intellectual property. This is a complex activity dealing both advocating appropriate policy, reporting to senior management and solving individual “people” problems in an area of tremendous importance for the Lab.

2007 – 2009 Division Leader – Recruiting Programs Lawrence Livermore National Laboratory

When the Lab changed contractors in 2007, I was asked by Cherry Murray (then LLNL Deputy Director, now Dean of Engineering at Harvard University) to create a new Recruiting Division within Human Resources. This role included all aspects of pipeline recruiting; diversity recruiting; the National Physical Sciences Consortium; the Lawrence Scholar Program (formerly SEGFR); summer internship programs; the NIF Professorship; the Lawrence Postdoctoral Fellowship Program; and the Institutional Post-Doc Program Board. In addition, I had primary responsibility for all on-campus recruiting efforts for LLNL as well as executive recruiting. As Recruiting Division Leader, I still coordinated closely with the university institutes and centers described below.

One aspect of my Division Leader responsibilities which had wide implications is the Lawrence Scholar Program (formerly known as the SEGFR Program), for which I was the Program Director. These graduate fellowships were then available to all UC campuses and departments, and are now nation-wide. I served as

the Chair of the Lawrence Scholar selection committee through the 2009 selection process. During my time as Recruiting Division Leader I was also in charge of all the undergraduate summer programs at LLNL.

I have also been strongly involved in developing a diverse pool of young Ph.D. scientists over the past fifteen years through my participation in the National Physical Sciences Consortium and the LLNL Research Collaborations Program involving HBCU/MI faculty and students. In particular, I worked very hard on an individual basis to place our outstanding summer students who come from an underrepresented background in positions at LLNL. This has proved highly successful, and I have worked to establish procedures that accomplish this result on a more general basis.

1996–2007 Deputy Director-University Relations Program Lawrence Livermore National Laboratory:

I was Deputy Director for LLNL's University Relations Program (URP) and served as the Acting Director for 2000-2001. I also served concurrently from 1997-2000 as the Founding Director of the LLNL Materials Research Institute (MRI), as Director of Lab Collaborations at UCOP (2000-2002) and as Scientific Editor for LLNL's Science and Technology Review (2005-2007). While many of the pipeline activities carried over to my new role as Recruiting Division Leader (described above), the URP position also included responsibilities for LLNL's K-16 Education Programs, LLNL's Five Institutes - Institute for Geophysics and Planetary Physics (IGPP), Institute for Scientific Computing Research (ISCR), Center for Accelerator Mass Spectrometry (CAMS), Institute for Laser Science and Applications (ILSA), Materials Research Institute (MRI), as well as LLNL institutional oversight for the NSF Center for Adaptive Optics. In this role I also ran our LDRD portfolio for the Institutes, oversaw the allocation of UC DRD funds coming from the UC Fee to support research, and served in many operational capacities. Major responsibilities included managing our graduate student program which supported up to 60 students doing their thesis at LLNL, and the Lawrence Fellows program, which is our prestigious Post-doc program.

I have also been strongly involved in undergraduate summer research programs during this period. One example was a new program which I started in 2004, the Lawrence Livermore Summer Internship. This was a small, prestigious program, which is a companion to the general summer programs run at LLNL. In each of the next five years, 3-5 top candidates were selected for research internships at LLNL (GPA > 3.8) and given mentoring on transitioning to graduate school.

2007 – 2007 Assistant Associate Director – NIF Lawrence Livermore National Laboratory

Served as part of the communication team and as senior staff for the NIF Associate Director.

2005 – 2007 Scientific Editor - Science and Technology Review LLNL

I was as the scientific editor of LLNL's major external science publication, Science and Technology Review (S&TR), which occurred from November, 2005 through March, 2007. This involves selecting the articles for development, and seeing them through to publication.

2000 – 2002 Director - Laboratory Collaborations UC - Office of the President:

I served as the Director of University Collaborations at UCOP, and in 2001-2002 I was able to create the Lab Professorship Program. One major result from this program was the selection in 2003 of UCLA to have a NIF Professorship at LLNL, which was filled by the selection of Christoph Neiman as the NIF Professor in 2005. I continued to be the major point of contact for this interaction for the year I served as an Assistant Associate Director for NIF (2007). Major responsibilities as Director including managing the Campus Lab Collaborations selection process. I was also able to create the companion Campus Lab Exchange program during my tenure.

1997-2000 Founding Director-Materials Research Institute Lawrence Livermore National laboratory:

The MRI brought together researchers from LLNL with the best materials scientists and students from all the UC campuses and across the country.

1994 Project Manager – (Technology Transfer Department) Lawrence Berkeley National Lab

I ran the CRADA selection process from initial call for proposals through the signing of the agreements.

EDUCATION:

•Postdoctoral Appointment Argonne National Laboratory:1982 - 1982

Research on magnetic and superconducting materials.

•University of Illinois, (UIC) - Ph.D. in Solid State Physics: 1976 - 1982

Argonne National Laboratory Education Fellow

•University of Illinois, (UIC) – B.A. in Physics: 1973 - 1976

James Scholar Honors Program, Minor in Mathematics

SELECTED ADMINISTRATIVE EXPERIENCE:

- Extensive experience managing K-16 education programs
- Extensive experience managing competitive review processes
- Extensive experience hiring and mentoring/coaching/guiding staff, post-docs and graduate students
- Prior experience ensuring compliance with regulatory requirements within a DOE National Lab
- Extensive experience in establishing and communication of Laboratory-wide programs
- Extensive experience interacting with the Director's Office, Legal, Staff Relations, Human Resources, Security Organization and with laboratory managers and employees at all levels.
- Founded the LLNL Materials Research Institute
- Established the Lawrence Post-Doctoral Fellowship
- Established the LLNL Sabbatical Scholars Program
- Expanded the LLNL Student Employee Graduate Research Fellowship (now called Lawrence Scholars) Program to include all UC Campuses
- *Expanded the Lawrence Scholar Program to include all California Universities
- Established the Campus-Lab-Exchange Program (UCOP)
- Established the National Ignition Facility (NIF) Professorship between UCLA and LLNL

BOOKS:

1. H. B. Radousky (editor) **Magnetic Properties of Heavy Fermion Systems**, (World Scientific Publishing, October, 2000). This is Volume 11 in the series "Modern Condensed Matter Physics."
2. H. B. Radousky, J. Holbery, B. O'Handley, N. Kioussis (editors) **Energy Harvesting - From Fundamentals to Devices** MRS Proceedings Volume 1102E, Cambridge Press (2008)
3. H. B. Radousky, J. Holbery, L. H. Lewis and, F. Schmidt (editors) **Energy Harvesting - From Fundamentals to Devices** MRS Proceedings Volume 1218E, Cambridge Press (2010)
4. H. B. Radousky, H. Liang, R. Venkatasubramanian (editors) **Energy Harvesting – Recent Advances in Materials, Devices and Applications** MRS Proceedings Volume 1325, Cambridge Press, (2011).

RECENT NEWS ARTICLES:

Recently was quoted in a Yale Environment 360 article about future opportunities in energy harvesting: REPORT: In a Host of Small Sources, Scientists See Energy Windfall, February 27, 2014
http://e360.yale.edu/feature/in_a_host_of_small_sources_scientists_see_energy_windfall/2743

TEACHING EXPERIENCE:

- UC-Davis Department of Applied Science (College of Engineering):
 - Graduate level Solid-State Physics
 - Graduate course in Superconductivity
- UC-Davis Physics Department:
 - Electro-magnetic Properties of Superconductors
 - Physics of Baseball (on a regular basis since 1996)

GRADUATE STUDENTS

•Graduated 4 UC-Davis Ph.D. students - Mark Bennahmias (Senior Vice President-Scieval LLC), Wren Carr (LLNL Staff Member), and Paul DeMange (LLNL Staff Member), Avi Thomas (Venture Academy) •Mentored 11 UC-Davis Ph.D. students, 1 UCLA Ph.D student

CONFERENCE ORGANIZATION AND SESSIONS CHAIRED

- Organized MRS Symposium on Energy Harvesting, Spring Meeting 2011.
- Organized MRS Symposium on Energy Harvesting, Fall Meeting 2009.
- Organized MRS Symposium on Energy Harvesting, Spring Meeting 2008.
- Session Chair for Magneto-Elastic Materials, Intermag Conference 2006, Baltimore MD.
- Organized UC-Davis - LLNL Workshop on Homeland Security, November 4, 2004.
- Session Chair for Semiconductors: Optical Properties and Spectroscopy of Structured Semiconductors 2000 March APS Meeting, Minneapolis, MN.
- Organizing Committee for Physics by the Bay Meeting, September 25, 1999 and September 16, 2000
- Co-Chair CLC Novel Materials Workshop, LLNL Materials. Research Inst, September 13-14, 1999
- Organizing comm. for the International Workshop on Electron Correlations, June, 1998
- Organizing Committee for the Tri-Lab Course on Dislocations, June 1998
- Organized UC-Davis - LLNL Biotechnology Collaboration Forum III, March 29, 1996
- Organized UC-Davis - LLNL Biotechnology Collaboration Forum I, Feb. 10, 1995
- Organized UC-Davis - LLNL Biotechnology Collaboration Forum II, June 23, 1995
- Session chair for Heavy Fermions, 1995 March APS Meeting, San Jose, CA.
- Session Chair for High Density Materials, 1987 Shockwave Meeting, Monterey, CA
- Organizing committee-Conference on Shock Waves in Condensed Matter, Monterey, CA July 20-23, 1987.

RECORDS OF INVENTION/PATENTS:

1. ***Energy Harvesting Using A Thermoelectric Material*** N. Nersessian, H. B. Radousky and G. P. Carman, LLNL File Number IL-11328. Patent granted in 2008.
2. ***Halogenated High T_c Superconductors and Method of Preparation***, H. B. Radousky, R. S. Glass M. J. Fluss, LLNL File Number IL-8411.
3. ***High Density Nano-Scale Josephson Junction Arrays***, H. B. Radousky and M. J. Bennahmias, LLNL File Number IL-9693.
4. ***Harvesting Mechanical and Thermal Energy by Combining Nanowires and Phase Change Materials***, H. B. Radousky, M. Wang and F. Qian, IL-12695, 11/06/2012.
5. ***Light Powered Electric Double-Layer Tuning for Desalination Using Nanostructure Arrays in Silicon Solar Cells***, Gang Logan Liu, Harry Radousky, Yemaya Bordain, Manas Gartia and Brent Trenhale, January 14, 2014 serial number 61/927,203.

PROFESSIONAL ORGANIZATIONS:

- Fellow of American Physical Society, Division of Condensed Matter Physics
- Member, Materials Research Society

BOOK CHAPTERS:

- M. Ross and H. B. Radousky, "Physics of Simple Molecules at High Density," in **Simple Molecular Systems at High Pressure**, ed. Polian, Loubeyre and Boccara (Plenum, 1989), p. 47.
- H. B. Radousky "Magnetism in Pr Containing Cuprates," a chapter in **Magnetic Properties of Heavy Fermion Systems**, ed. H. B. Radousky, 345-368, (World Scientific, October, 2000).

JOURNAL PUBLICATIONS (H index = 33 4,035 total citations):

1. 1982 Radousky, H.B., T. Jarlborg, G.S. Knapp, and A.J. Freeman. **Assessment of Theoretical Determinations of the Electron-Phonon Coupling Parameter in Metals and Intermetallic Compounds.** Physical Review B26:1208.
2. 1982 Fradin, F.Y., H.B. Radousky, N.J. Zaluzec, G.S. Knapp, and J.W. Downey. **Superconductivity in the Y-Ir System.** Materials Research Bulletin 17:427.
3. 1983 Radousky, H.B., G.S. Knapp, A.T. Aldred, and J.S. Kouvel. **Superconducting and Magnetic Properties of $Y_{0.9}R_{0.1}Rh_4B_4$.** Physical Review B27:4236.
4. 1983 Radousky, H.B., D.G. Niarchos, B.D. Dunlap, and G.S. Knapp. **Heat Capacity Studies of Crystal Field Effects in RRh_4B_4 Compounds.** Physical Review B27:5526.
5. 1983 Radousky, H.B., A.T. Aldred, G.S. Knapp, and J.S. Kouvel. **Unusual Critical Field Behavior in $Y_{1-x}Er_xRh_4B_4$.** Physical Review B28:2850.
6. 1983 Radousky, H.B., G.S. Knapp, J.W. Downey, A.T. Aldred, and A.J. Freeman. **Magnetic Properties of $HfZn_2$.** Journal of Magn. Magn. Materials 40:117.
7. 1984 Holmes, N.C., H.B. Radousky, M.S. Moss, and W.J. Nellis. **Silica at Ultra High Temperature and Expanded Volume.** Applied Physics Letters 45:626.
8. 1985 Radousky, H.B., M. Ross, A.C. Mitchell, and W.J. Nellis. **Shock Temperatures and Melting in Csl.** Physical Review B31:145.
9. 1986 Nellis, W.J., H.B. Radousky, T.H. Geballe, R.H. Hammond, R. Koch, and G.W. Hull, Jr. **Superconductivity of Nb Recovered from Megabar Dynamic Pressures.** Applied Physics Letters 49:413.
10. 1986 Radousky, H.B., W.J. Nellis, M. Ross, D.C. Hamilton, and A.C. Mitchell. **Molecular Dissociation and Shock-Induced Cooling in Fluid Nitrogen at High Densities and Temperatures.** Physical Review Letters 57:2419.
11. 1988 Radousky, H.B. and M. Ross. **Shock-Induced Cooling in Dense Fluid Nitrogen.** High Pressure Research 1:39.

12. 1988 Radousky, H.B. and M. Ross. **Shock Temperature Measurements in Dense Fluid Xenon.** Physics Letters A129:43.
13. 1988 Nellis, W.J., D.C. Hamilton, N.C. Holmes, H.B. Radousky, F.H. Ree, and A.C. Mitchell, **"The Nature of the Interior of Uranus Based on Studies of Planetary Ices at High Dynamic Pressure,"** Science 240:779.
14. 1989 Peng, J.L., P. Klavins, R.N. Shelton, H.B. Radousky, P.A. Hahn, L. Bernardez, and M. Costantino. **Preparation, Characterization and Superconducting Properties of Tetragonal LaBaCaCu₃O₇.** Physical Review B39:9074.
15. 1989 Radousky, H.B., K.F. McCarty, J.L. Peng, and R.N. Shelton. **Preparation and Raman Analysis of Single Phase Y_{1-x}Pr_xBa₂Cu₃O₇.** Physical Review B, Rapid Communications 39:12, 383.
16. 1989 Peng, J.L., R.N. Shelton, and H.B. Radousky. **Preparation of and Magnetic Scattering in Nd_{2-x}Ce_xCuO₄.** Solid State Communications 71:479.
17. 1989 McCarty, K.F., H.B. Radousky, D.G. Hinks, Y. Zeng, A.W. Mitchell, T.J. Folkerts, and R.N. Shelton. **Electron-Phonon Coupling in Superconducting Ba_{0.6}K_{0.4}BiO₃: A Raman Scattering Study.** Physical Review B, Rapid Communications 40:2662.
18. 1989 Peng, J.L., R.N. Shelton, H.B. Radousky, P.A. Hahn, and A.L. Bernardez. **Upper Critical Field and Normal State Properties of Single Phase Y_{1-x}Pr_xBa₂Cu₃O₇ Compounds.** Physical Review B40:4517.
19. 1989 Radousky, H.B. and A.C. Mitchell. **A Fast UV/Visible Pyrometer for Shock Temperature Measurements to 20,000 K.** Review Scientific Instruments 60:3707.
20. 1990 Peng, J.L., R.N. Shelton, and H.B. Radousky. **Kondo Effect and Superconductivity in Nd_{2-x}Ce_xCuO₄ Compounds.** Physical Review B41:187.
21. 1990 McCarty, K.F., J.Z. Liu, R.N. Shelton, and H.B. Radousky. **Raman-active Phonons of a Twin-Free YBa₂Cu₃O₇ Crystal: A Complete Polarization Study.** Physical Review B41:8792.
22. 1990 Radousky, H.B., R.S. Glass, P.A. Hahn, M.J. Fluss, R.G. Meisenheimer, B.P. Bonner, C.I. Merzbacher, E.M. Larson, K.D. McKeegan, J.C. O'Brien, J.L. Peng, R.N. Shelton, and K.F. McCarty. **Metallization and Superconducting Properties of YBa₂Cu₃O_{6.2}Br_y.** Physical Review B41:11140.
23. 1990 Bonner, B.P., R.L. Reichlin, H.B. Radousky, T.J. Folkerts, and R.N. Shelton. **Anomalous Pressure Dependence of Optical Reflectivity in the Superconductor Ba_{1-x}K_xBiO₃.** Physical Review B41:11576.
24. 1990 Radousky, H.B. and A.C. Mitchell. **Shock Temperature Measurements and Planetary Ices: NH₃, CH₄, and Synthetic Uranus.** Journal of Chemical Physics 93:8235.
25. 1990 McCarty, K.F., J.Z. Liu, R.N. Shelton, and H.B. Radousky. **Electronic Raman Scattering of YBa₂Cu₃O₇ Using C-Axis Polarization: Evidence for Two Characteristic Superconducting Energies.** Physical Review B42:9973.

26. 1991 Nellis, W.J., H.B. Radousky, D.C. Hamilton, A.C. Mitchell, N.C. Holmes, K.B. Christianson, and M. Van Thiel. **Equation-of-State, Shock Temperature and Electrical Conductivity Data of Dense Fluid Nitrogen in the Region of the Dissociative Phase Transition.** Journal of Chemical Physics 94:2244.
27. 1991 Phillips, N.E., R.A. Fisher, R. Caspara, A. Amato, H.B. Radousky, J.L. Peng, L. Zhang, and R.N. Shelton. **Magnetic Ordering, Hyperfine and "Linear" Contributions to the Low-Temperature Specific Heat of $(Y_{1-x}Pr_x)Ba_2Cu_3O_{7-d}$.** Physical Review B, Rapid Communications B43: 11488.
28. 1991 McCarty, K.F., H.B. Radousky, J.Z. Liu, and R.N. Shelton. **Temperature Dependence of the Linewidths of the Raman-Active Phonons of $YBa_2Cu_3O_7$: Evidence for a Superconducting Gap Between 440 and 500 cm^{-1} .** Physical Review B, Rapid Communications 43:13751.
29. 1991 Yoo, C.S., H.B. Radousky, N.C. Holmes, and N.M. Edelstein. **Luminescence of Sm^{2+} Ions as a Probe of the Pressure-Induced Phase Transition in SrF_2 .** Physical Review B44:830.
30. 1991 McCarty, K.F., J.Z. Liu, Y.X. Jia, R.N. Shelton, and H.B. Radousky. **Effect of Gold-Doping on the Energy Gap of $YBa_2Cu_3O_7$ as Determined by Raman Scattering.** Solid State Communications 79:359-362.
31. 1992 Wang, Y., A.M. Rao, J.G. Zhang, X.X. Bi, P.C. Eklund, M.S. Dresselhaus, P.P. Nguyen, J.S. Moodera, G. Dresselhaus, H.B. Radousky, R.S. Glass, M.J. Fluss, and J.Z. Liu. **ab-Plane Optical Properties of $YBa_2Cu_3O_{7-x}Br_y$ Single Crystals.** Physical Review B45:2523-2526.
32. 1992 McCarty, K.F., J.Z. Liu, Y.X. Jia, R.N. Shelton, and H.B. Radousky. **Comparison of the Raman-Active Phonons of $YBa_2Cu_3O_7$ Crystals Grown in Gold and Zirconia Crucibles.** Physica C192:331-350.
33. 1992 Tobin, J.G., C.G. Olson, C. Gu, J.Z. Liu, F.R. Solal, M.J. Fluss, R.H. Howell, J.C. O'Brien, H.B. Radousky, and P.A. Sterne. **Valence Bands and Fermi-Surface Topology of Untwinned Single-Crystal $YB_2Cu_3O_{6.9}$.** Physical Review B45:5563-5576.
34. 1992 Radousky, H.B. **A Review of the Superconducting and Normal State Properties of $Y_{1-x}Pr_xBa_2Cu_3O_7$.** Journal of Materials Research 7:1917-1955.
35. 1992 Jia, J.X., J.Z. Liu, M.D. Lan, P. Klavins, R.N. Shelton, and H.B. Radousky. **Upper Critical Field H_{c2} of Single-Crystal $Y_{1-x}Pr_xBa_2Cu_3O_{7-x}$.** Physical Review B45:10609-10615.
36. 1992 McCarty, K.F., J.E. Schirber, D.R. Boehme, H.B. Radousky, J.Z. Liu, and R.N. Shelton. **Dependence of the Excitation Wavelength on the Raman-Active Phonons of $YBCO_7$: Search for Landau Damping in Single Domain Crystals.** Physica C200:315-322.

37. 1992 Lan, M.D., J.Z. Liu, R.N. Shelton, H.B. Radousky, B.W. Veal, and J.W. Downey. **Magnetic Properties of Oxygen-Depleted $\text{YBa}_2\text{Cu}_3\text{O}_{7-y}$ Single Crystals.** Physical Review B46:11919-11922.
38. 1992 McCarty, K.F., J.Z. Liu, Y.X. Jia, R.N. Shelton, and H.B. Radousky. **Temperature Dependence of the Phonon Frequencies, Linewidths, and Raman-Continuum Scattering of Single-Domain $\text{Y}_{0.56}\text{Pr}_{0.44}\text{Ba}_2\text{Cu}_3\text{O}_7$.** Physical Review B46:11958.
39. 1992 Bennahmias, J., C. O'Brien, H.B. Radousky, T.J. Goodwin, P. Klavins, J.M. Link, C.A. Smith, and R.N. Shelton. **Magnetic, Structural, and Raman Characterization of $\text{RBa}_2\text{Cu}_2\text{NbO}_8$ (R = Pr, La, and Nd).** Physical Review B46:11986.
40. 1992 Goodwin, T.J., H.B. Radousky, and R.N. Shelton. **Superconducting, Magnetic, Electronic Transport and Structural Properties of $\text{R}_{1.5}\text{Ce}_{0.5}\text{Sr}_2\text{Cu}_2\text{NbO}_{10}$, R=Pr, Nd, Sm, and Eu.** Physica C204:212-224.
41. 1993 Rosov, N., J. W. Lynn, H. B. Radousky, M. Bennahmias, T. J. Goodwin, P. Klavins, and R. N. Shelton. **Crystal Structure and Magnetic Ordering of the Rare Earth and Cu Moments in RBCNO (R = Nd and Pr).** Physical Review B47:15256-15264.
42. 1993 Nguyen, P. P., Z. H. Wang, A. M. Rao, M. S. Dresselhaus, J. S. Moodera, G. Dresselhaus, H. B. Radousky, R. S. Glass, and J. Z. Liu. **Transport and Magnetic Properties of $\text{YBa}_2\text{Cu}_3\text{O}_{6.2}\text{Br}_y$ Single Crystals.** Physical Review B48:1148-1155.
43. 1993 Park, S. J., J. S. Kouvel, H. B. Radousky, and J. Z. Liu. **Cross-Flux Effect as a Vortex Pinning Process in $\text{YBa}_2\text{Cu}_3\text{O}_7$ and $\text{Y}_{0.8}\text{Pr}_{0.2}\text{Ba}_2\text{Cu}_3\text{O}_7$ Crystals.** Physical Review B48:13998-14000.
44. 1993 Bennahmias, M., A. F. Bello, D. Back, H. B. Radousky, T. J. Goodwin, P. Klavins, and R. N. Shelton. **Magnetic Properties of Polycrystalline $\text{R}_{1.5}\text{Ce}_{0.5}\text{Sr}_2\text{Cu}_2\text{NbO}_{10}$ (R = Eu, Nd, and Sm) High- T_c Superconducting Ceramics.** Physical Review B48:6525-6532.
45. 1994 Lorenzana, H. E., M. Bennahmias, H. B. Radousky, and M. B. Kruger. **Producing Diamond Anvil Cell Gaskets for Ultrahigh-Pressure Applications Using an Inexpensive Electric Discharge Machine.** Review of Scientific Instruments 65:3540-3543.
46. 1996 Cheng, S.C., V.P. Dravid, T.J. Goodwin, R.N. Shelton, and H.B. Radousky. **Determination of the Valence of Pr in $(\text{Eu}_{1.5-x}\text{Pr}_x\text{Ce}_{0.5})\text{Sr}_2\text{Cu}_2\text{NbO}_{10}$ Superconducting Compounds by Electron-Energy-Loss Spectroscopy.** Physical Review B53:11779-11783.
47. 1996 Bennahmias, M., H.B. Radousky, M. Buford, A. Kebede, M. McIntyre, T.J. Goodwin, and R.N. Shelton. **Magnetic Studies of Ta Doping in $\text{Pr}_{1.5}\text{Ce}_{0.5}\text{Sr}_2\text{Cu}_2\text{NbO}_{10}$.** Physical Review B53:2773-2780.
48. 1996 Bello, A.F., H.B. Radousky, and D.J. Erskine. **Separating the Coherent and Incoherent Effects in Optical Correlation Experiments on Semiconductors and Other Saturable Absorbers.** Review of Scientific Instruments 67:503-511.

49. 1996 Hasan, M.K., J.S. Kouvel, H.B. Radousky, T.J. Goodwin, and R.N. Shelton. **Vortex Pinning in Polycrystalline $\text{Eu}_{1.5-x}\text{Pr}_x\text{Ce}_{0.5}\text{Sr}_2\text{Cu}_2\text{NbO}_{10}$ from Rotational Magnetic Measurements.** *Physica C* 270:216-222.
50. 1997 Goodwin, T.J., H.B. Radousky, R.N. Shelton, M. Bennahmias, J. Lynn, and N. Rosov. **Magnetic Properties in $\text{Eu}_{1.5-x}\text{Pr}_x\text{Ce}_{0.5}\text{Sr}_2\text{Cu}_2\text{NbO}_{10}$.** *Physical Review B* 55:3297.
51. 1997 Goodwin, T.J., R.N. Shelton, and H.B. Radousky. **Relating Structural Properties and Oxygen Content to the Electronic and Magnetic States of $(\text{Eu}_{1.5-x}\text{Pr}_x\text{Ce}_{0.5})\text{Sr}_2\text{Cu}_2\text{NbO}_{10-x}$.** *Physica C* 282:745-746.
52. 1997 Goodwin, T.J., R.N. Shelton, H.B. Radousky, N. Rosov, and W.J. Lynn. **Pr and Cu Magnetism in $(\text{Pr}_{1.5}\text{Ce}_{0.5})\text{Sr}_2\text{Cu}_2\text{M}_{10-x}$ ($\text{M} = \text{Nb, Ta}$): Correlations with a Suppression of Superconductivity.** *Physical Review B* 55:3297-3307.
53. 1997 Goodwin, T.J., H.B. Radousky and R.N. Shelton. **Superconductivity and Magnetism in $(\text{R}_{1.5-x}\text{Pr}_x\text{Ce}_{0.5})\text{Sr}_2\text{Cu}_2\text{NbO}_{10-x}$, $\text{R} = \text{Nd, Sm, Eu}$: Criteria for Modeling the Suppression of Superconductivity by Pr in High T_c Cuprates.** *Physical Review B* 56:5144-5147.
54. 1997 Goodwin, T.J., H.B. Radousky, and R.N. Shelton. **Structural Properties and Oxygen Stoichiometry of $(\text{Pr}_{1.5}\text{Ce}_{0.5})\text{Sr}_2\text{Cu}_2\text{TaO}_{10-x}$ and $(\text{R}_{1.5-x}\text{Pr}_x\text{Ce}_{0.5})\text{Sr}_2\text{Cu}_2\text{NbO}_{10-x}$, $\text{R} = \text{Nd, Sm, Eu}$ - Correlations with Electronic and Magnetic Properties.** *Journal of Solid State Chemistry* 133:445-457.
55. 1997 Lorenzana, H.E., J.E. Klepeis, M.J. Lipp, W.J. Evans, H.B. Radousky, and M. VanSchilfgaarde. **High-Pressure Phases of PbF_2 : A Joint Experimental and Theoretical Study.** *Physical Review B* 56:543-551.
56. 1998 Staub, U., L. Soderholm, R. Osborn, T.J. Goodwin, H.B. Radousky, and R.N. Shelton. **Magnetic Ground State of Pr in $(\text{Pr}_{1.5}\text{Ce}_{0.5})\text{Sr}_2\text{Cu}_2\text{NbO}_{10-x}$.** *Journal of Physics-Condensed Matter* 10:4637-4643.
57. 1998 Demos, S.G., M. Yan, M. Staggs, J.J. DeYoreo, and H.B. Radousky. **Raman Scattering Investigation of KH_2PO_4 Subsequent to High Fluence Laser Irradiation.** *Applied Physics Letters* 72:2367-2369.
58. 1999 Bennahmias, M., H.B. Radousky, H.E. Lorenzana, T.J. Goodwin, and R.N. Shelton. **Raman and Magnetic Susceptibility Evidence for a Structural Transition in $(\text{Eu}_{1.5-x}\text{Pr}_x\text{Ce}_{0.5})\text{Sr}_2\text{Cu}_2\text{NbO}_{10}$ Compounds.** *Journal of Raman Spectroscopy* 30:543-545.
59. 1999 Demos, S.G., M. Staggs, M. Yan, H.B. Radousky, and J.J. De Yoreo. **Microscopic Fluorescence Imaging of Bulk Defect Clusters in KH_2PO_4 Crystals.** *Optics Letters* 24:268-270,271-U7.
60. 1999 Demos, S.G.; M. Staggs, M. Yan, H.B. Radousky, and J.J. De Yoreo. **Investigation of Optically Active Defect Clusters in KH_2PO_4 Under Laser Photoexcitation.** *Journal of Applied Physics* 85:3988-3992.

61. 2000 Demos, SG; Burnham, A; Wegner, P; Norton, M; Zeller, L; Runkel, M; Kozlowski, MR; Staggs, M; Radousky, HB. **Surface defect generation in optical materials under high fluence laser irradiation in vacuum.** Electronics Letters 36:566-567.
62. 2000 Demos, SG; Radousky, HB; Alfano, RR. **Deep subsurface imaging in tissues using spectral and polarization filtering.** Optics Express, 7:23-28.
63. 2001 S. G. Demos, Staggs, J. J. De Yoreo, H.B. Radousky, **Imaging of laser-induced reactions of individual defect nano-clusters.** Optics Letters 26, 24-27.
64. 2001 Garces, NY; Stevens, KT; Halliburton, LE; Demos, SG; Radousky, HB; Zaitseva, NP. **Identification of electron and hole traps in KDP crystals,** Journal of Applied Physics, 89:47-52.
65. 2002 Qing Zhang, Nicholas Kioussis, Stavros Demos, Harry Radousky, **Ab initio study of the electronic structure and phase transition in KDP,** Phys. Rev. B 65, 24108 .
66. 2002 Qing Zhang, Nicholas Kioussis, Stavros Demos, Harry Radousky, **New Evidence of the Displace Feature of the Ferroelectric Transition in KDP-type Crystals,** Journal of Physics: Condensed matter 14, 1-5.
67. 2002 S. G. Demos, , M. Staggs, and H. B. Radousky, **Endoscopic Method For Large-Depth Optical Imaging Of Interior Body Organs.** Electronics Letters, V38(N4):155-157.
68. 2002 H. Jiang, J. McNary, H. W. K. Tom, M. Yan, H. B. Radousky, and S. G. Demos, **Nanosecond time-resolved multi-probe imaging of laser damage in transparent solids.** Applied Physics Letters 81, 3149.
69. 2003 S.G. Demos. M. Staggs, H.B. Radousky, **Bulk defect formations in KH_2PO_4 crystals investigated using fluorescence microscopy.** Physical Review B, 67, 4102.
70. 2003 C.S. Liu, Qing Zhang, Nicholas Kioussis, S.G. Demos, H.B. Radousky, **Electronic Structure of Intrinsic and Extrinsic Hydrogen Point Defects in KH_2PO_4 .** Physical Review B, 68, 4107.
71. 2003 M.M Chirila, N.Y. Garces, L.E. Halliburton, S.G. Demos, T.A. Land, H.B. Radousky, **Production and Thermal Decay of Radiation-induced Point Defects in KD_2PO_4 Crystals.** Journal of Applied Physics, 94, 6456.
72. 2003 C.S. Liu, Nicholas Kioussis, S.G. Demos, H.B. Radousky, **Electron- or Hole-assisted Reactions of H Defects in Hydrogen-bonded KDP.** Physical Review Letters, 91, 15505.
73. 2003 C.W. Carr, H.B. Radousky, and S.G. Demos, **Wavelength dependence of laser-induced damage: Determining the damage initiation mechanisms.** Phys.s Rev. Letters, 91, 27402.
74. 2004 C.W. Carr, H.B. Radousky, A.M. Rubenchik, M.D. Feit, S.G. Demos, **Localized dynamics during laser-induced damage in optical materials.** Physical Review Letters 92, 87401.
75. 2004 J. Carrey, H.B. Radousky, A.E. Berkowitz, **Spark-eroded Particles: Influence of Processing Parameters.** Journal of Applied Physics, 95, 823.

76. 2004 A. E. Berkowitz^a, H. Harper, David J. Smith, Hao Hu, Qian Jiang, and Virgil C. Solomon and H.B. Radousky, **"Hollow Metallic Microspheres Produced by Spark Erosion"**, Applied Physics Letters, 85, 940.
77. 2004 N. Nersessian, S. Or, G. P. Carman, W, Choe, H.B. Radousky, **"Hollow and solid spherical magnetostrictive particulate composites"** Journal of Applied Physics, 96, 3362.
78. 2004 P. DeMange, H. B. Radousky and S. G. Demos, **"System for Evaluation of laser-induced damage performance of optical materials for large aperture lasers"**, Review of Scientific Instruments, 75, 3298.
79. 2004 N. Nersessian, S. Or, G. P. Carman, W, Choe, H.B. Radousky, M. McElfresh, V. K. Pecharsky and A. O Pecharsky, **"Gd₅Si₂Ge₂ composite for magnetostrictive actuator applications"**. Applied Physics Letters, 84, 4801
80. 2005 C.W. Carr, M. D. Feit, A.M. Rubenchik, H.B. Radousky, P. DeMange, S.O. Kucheyev, S. Oberhelman, M.D. Shirk, M.D. Feit, S.G. Demos, **Emission from Ultra-dense Plasma Produced by Femtosecond Radiation**. Optics Letters, 30, 661.
81. 2005 P. DeMange, C. W. Carr, R. A. Negres, H. B. Radousky, and S. G. Demos , **"Multi-wavelength investigation of laser-damage performance in KDP and DKDP following laser annealing"** Optics Letters, 30, 221.
82. 2005 C.S. Liu, C. J. Hou, Nicholas Kioussis, S.G. Demos, H.B. Radousky, **Electronic structure calculations of an oxygen vacancy in KH₂PO₄**. Physical Review B, 72, 4110.
83. 2006 P. DeMange, R. A. Negres, H. B. Radousky, M. D. Feit, A. M. Rubenchik and S. G. Demos , **"Understanding and predicting the damage performance of KDxH₂-xPO₄ crystals under simultaneous exposure to 532- and 355-nm pulses"** Applied Physics Letters, 89, 181922.
84. 2006 P. DeMange, R. A. Negres, C. W. Carr, H. B. Radousky, and S. G. Demos , **"Laser-induced defect reactions governing damage initiation in DKDP crystals"** Optics Express 14, 5313.
85. 2006 P. DeMange, R. A. Negres, H. B. Radousky, and S. G. Demos, **"Differentiation of defect populations responsible for bulk laser-induced damage in potassium dihydrogen phosphate crystals,"** Optical Engineering, 45, 104205.
86. 2008 P. DeMange, R. A. Negres, A. M. Rubenchik, H. B. Radousky, M. D. Feit, and S. G. Demos, **"The energy coupling efficiency of multi-wavelength laser pulses to damage initiating defects in DKDP nonlinear crystals"** Journal of Applied Physics, 103, 83122.
87. 2008 P. DeMange, C. W. Carr, R. A. Negres, H. B. Radousky, and S. G. Demos **"Laser annealing characteristics of multiple bulk defect populations within DKDP crystals."** Journal of Applied Physics, 104, 103103.
88. 2011 S. H. Glenzer, B. J. MacGowan, N. B. Meezan,..., H. B. Radousky, ... and E. I. Moses (414 total authors) **"Demonstration of Ignition Radiation Temperatures in Indirect-Drive Inertial Confinement Fusion Hohlraums."** Physical Review Letters 106, 085004

89. 2011 A. T. Thomas, T. Ognibene, P. Daley, K. Turteltaub, H. B. Radousky and G. Bench, **"Ultrahigh efficiency moving wire combustion interface for on-line coupling of HPLC"**, Journal of Analytical Chemistry, Volume: 83 Issue: 24 Pages: 9413-9417
90. 2012 H. F. Robey, T. R. Boehly, P. M. Celliers, ...H. B. Radousky,...E. Moses (77 total authors) **"Shock timing experiments on the National Ignition Facility: Initial results and comparison with simulation"**, Physics of Plasmas 19, 042706.
91. 2012 H. F. Robey, P. M. Celliers,...H. B. Radousky,...E. Moses (70 total authors) **"Precision Shock Tuning on the National Ignition Facility"**, PRL 108, 215004.
92. 2012 H. B. Radousky and H. Liang **"Energy Harvesting - An Integrated View of Materials, Devices and Applications"**, *Nanotechnology* **23** 502001 [doi:10.1088/0957-4484/23/50/502001](https://doi.org/10.1088/0957-4484/23/50/502001).
93. 2014 Jonathan C. Crowhurst, Bryan W. Reed, Michael R. Armstrong, Harry B. Radousky, Jeffrey A. Carter, Damian C. Swift, Joseph M. Zaug, Roger W. Minich, Nick E. Teslich, and Mukul Kumar **"The $\alpha \rightarrow \epsilon$ phase transition in iron at strain rates up to 10^9 s^{-1} "** Journal of Applied Physics 115, 113506 doi:10.1063/1.4868676.
94. 2014 Jonathan Crowhurst, Joseph Zaug, Harry Radousky, Bradford Steele, Aaron Landerville, and Oleynik, Ivan, **"Ammonium Azide under High Pressure - a Combined Theoretical and Experimental Study"**, *J. Phys. Chem. A*, **2014**, 118 (38), pp 8695–8700 DOI: 10.1021/jp502619n

INVITED REVIEWS

•H. B. Radousky, **"A Review of the Superconducting and Normal State Properties, $\text{Y}_{1-x}\text{Pr}_x\text{Ba}_2\text{Cu}_3\text{O}_7$ "**, Journal of Materials Research **7**, 1917 (1992). 470 current citations.

•H. B. Radousky, H. Liang, **"Energy Harvesting – An Integrated View of Materials, Devices and Applications"**, *Nanotechnology* **23** 502001(2012). 7,606 current downloads.

OTHER PUBLISHED WORK:

1. 1981 Radousky, H.B., G.S. Knapp, J.S. Kouvel, T.E. Kippert, and J.W. Downey. **Magnetic Correlations in ErRh_4B_4 . Ternary Superconductors.** Edited by Shenoy, Dunlap, and Fradin (North Holland), p. 151.
2. 1984 Radousky, H.B., R.L. Reichlin, and R.H. Howell. **High Pressure Positron Annihilation Studies of Fe in a Diamond Anvil Cell**, Proceedings of Physics and Physicochemistry of Highly Condensed Matter, Aussois, France, J. de Physique **68**:369.
3. 1984 Nellis, W.J., N.C. Holmes, A.C. Mitchell, M. Van Thiel, H.B. Radousky, D.C. Hamilton, and S. Henning. **Properties of the Planetary Materials He, SiO_2 , and N_2 at High Dynamic Pressures and Temperatures.** Journal de Physique **C8**:105.
4. 1985 Radousky, H.B., R.L. Reichlin, and R.H. Howell. **High Pressure Doppler Broadening Measurements Performed on Iron in a Diamond Anvil Cell.** Proceedings of 7th

International Conference on Positron Annihilation, Delhi, India. Edited by Jain, Singru, and Gopinathan (World Scientific), p. 83.

5. 1986 Nellis, W.J., D.C. Hamilton, R.J. Trainor, H.B. Radousky, A.C. Mitchell, and N.C. Holmes. **Fluids at High Dynamic Pressures and Temperatures.** Physica 139 & 140B:565.
6. 1985 Nellis, W.J., H.B. Radousky, W.C. Moss, A.C. Mitchell, E. Dalder, L. Summers, M.B. Maple, and M. McElfresh. **Superconducting Critical Temperatures of Nb Recovered from Mbar Dynamic Pressures.** Physica 135B:240.
7. 1986 Radousky, H.B., A.C. Mitchell, W.J. Nellis, M. Ross. **Shock Temperature Measurements in Ammonia.** Proceedings of the APS Conference on Shock Waves, Spokane, WA. Edited by Y.M. Gupta (Plenum), p. 467.
8. 1986 Nellis, W.J., W.C. Moss, H.B. Radousky, A.C. Mitchell, L.T. Summers, E.N. Dalder, M.B. Maple, and M. McElfresh. **Properties of Niobium Recovered from Megabar Dynamic Pressures.** Proceedings of the APS Shock Wave Meeting, Spokane, WA. Edited by Y.M. Gupta (Plenum), p. 719.
9. 1986 Nellis, W.J., N.C. Holmes, H.B. Radousky, and D. Hamilton. **Properties of Condensed Matter at High Shock Pressures.** Proceedings of the 15th Shock Tube Symposium, Berkeley, CA. Edited by Bershader and Hanson (Stanford University Press), p. 15.
10. 1988 H.B. Radousky, **Shock-Induced Cooling in Dense Fluids,** in Shock Waves in Condensed Matter. Edited by N. Holmes and S. Schmidt (North Holland), p. 89.
11. 1988 Hamilton, D.C., W.J. Nellis, N.C. Holmes, H.B. Radousky, F.H. Ree, and M. Nicol. **Electrical Conductivity and Equation of State Measurements on Planetary Fluids at High Pressures and Temperatures,** in Shock Waves in Condensed Matter. Edited by N. Holmes and S. Schmidt (North Holland) p. 99.
12. 1989 Ross, M. and H.B. Radousky. **Physics of Simple Molecules at High Density,** in Simple Molecular Systems at High Pressure. Edited by A. Polian, P. Loubeyre, and N. Boccara (Plenum), p. 47.
13. 1989 Radousky, H.B., P.A. Hahn, J.L. Peng, and R.N. Shelton. **Magnetic Pair Breaking in $Y_{1-x}Pr_xBa_2Cu_3O_7$.** Proceedings of the International M²S-HTSC Conference, Stanford, CA, July 23-28, Physica C162-164:89.
14. 1989 Folkerts, T.J., R.N. Shelton, and H.B. Radousky. **Preparation and Characterization of Single Phase $Ba_{1-x}K_xBiO_3$.** Submitted to Proceedings of the International M²S-HTSC Conference, Stanford, CA, July 23-28. Physica C162-164:550.
15. 1989 Peng, J.L., R.N. Shelton, and H.B. Radousky. **Superconductivity and Magnetic Scattering in the $Nd_{2-x}Ce_xCuO_4$ Compounds.** Proceedings of the International M²S-HTSC Conference, Stanford, CA, July 23-28. Physica C162-164:1363.

16. 1989 Howell, R.H., H.B. Radousky, A.L. Wachs, M.J. Fluss, P.E.A. Turchi, Y.C. Jean, C.S. Sundar, C.W. Chu, R.N. Shelton, and D.G. Hinks. **Systematics in Positron Annihilation Lifetime Analysis of High T_c Superconducting Transitions.** Proceedings of the International M2S-HTSC Conference, Stanford, CA, July 23-28. Physica C162-164:1377.
17. 1990 Peng, J.L., R.L. Greene, P. Klavins, R.N. Shelton, and H.B. Radousky. **Thermogravimetric Analysis of $Nd_{2-x}Ce_xCuO_{4-w}$.** Proceedings of the MRS 169:173.
18. 1990 Amato, A., R. Caspary, R.A. Fisher, N.E. Phillips, H.B. Radousky, J.C. Peng, L. Zhang, and R.N. Shelton. **Specific Heat of $Y_{1-x}Pr_xBa_2Cu_3O_7$: Magnetic Ordering and Hyperfine Fields.** Physica B165&166:1347.
19. 1991 Radousky, H.B., R.S. Glass, D. Back, A.H. Chin, M.J. Fluss, J.Z. Liu, W.D. Mosley, P. Klavins, and R.N. Shelton. **Processing Parameters and Kinetics of Bromination and Chlorination in the $YBa_2Cu_3O_{6+x}$ System.** IEEE Transactions on Magnetics 27:2512.
20. 1991 O'Brien, J.C., R.H. Howell, H.B. Radousky, P.A. Sterne, D.A. Hinks, T.J. Folkerts, and R.N. Shelton. **Positron Life Time Studies of Defect Structures in $Ba_{1-x}K_xBiO_3$.** Proceedings of the MRS 209:877.
21. 1991 Olsen, C.G., J.G. Tobin, F.R. Solal, C. Gu, J.Z. Liu, M.J. Fluss, R.H. Howell, J.C. O'Brien, H.B. Radousky, and P.A. Sterne. **High Resolution Photoemission Studies of Untwinned $YBCO_{6.9}$.** J. Phys. Chem. Solids 52:1419.
22. 1991 Phillips, N.E., R.A. Fisher, D.A. Wright, A. Amato, R. Caspary, H.B. Radousky, J.L. Peng, L. Zhang, and R.L. Shelton. **Magnetic Ordering, Hyperfine and "Linear" Contributions to the Low-Temperature Specific Heat of $(Y_{1-x}Pr_x)Ba_2Cu_3O_{7-d}$.** Physica C185-189:1069.
23. 1991 Jia, Y.X., J.Z. Liu, M.D. Lan, P. Klavins, R.N. Shelton, and H.B. Radousky. **Superconducting and Normal State Properties of $(Y_{1-x}Pr_x)Ba_2Cu_3O_{7-d}$ Single Crystals.** Physica C185-189:185.
24. 1992 Howell, R.H., P.A. Sterne, F. Solal, M.J. Fluss, J. Tobin, J. O'Brien, H.B. Radousky, H. Haghighi, J.H. Kaiser, S.L. Rayner, R.N. West, J.Z. Liu, R. Shelton, C.G. Olsen, C. Gu, K. Kitaxawa, and H. Kojima. **Electronic Structure in High Temperature Superconducting Oxides.** Materials Science Forum 105-110:265.
25. 1992 Radousky, H.B., J.C. O'Brien, M. Bennahmias, P. Klavins, T.J. Goodwin, J.M. Link, C.A. Smith, and R.N. Shelton. **Structural and Magnetic Properties of $RBa_2Cu_2NbO_8$ ($R = Pr, La, \text{ and } Nd$).** Proceedings of the MRS 275:113.
26. 1993 Radousky, H.B., T. J. Goodwin, and R. N. Shelton. **Absence of Superconductivity in $Pr_{1.5}Ce_{0.5}Sr_2Cu_2NbO_{10}$. A general Correlation with Magnetic Ordering.** Physica C209:155.

27. 1993 Bennahmias, M., H.B. Radousky, T.J. Goodwin, and R.N. Shelton. **Superconductivity and Magnetism in Niobium Doped $\text{YBa}_2\text{Cu}_3\text{O}_7$ Related High T_c Ceramics.** Journal of Electronic Materials 22:1189.
28. 1994 Radousky, H.B., A. F. Bello, D. J. Erskine, L. N. Dinh, M. J. Bennahmias, M. D. Perry, T. R. Ditmire, and R. P. Mariella, Jr. **Femtosecond Probe-Probe Studies of LT-Grown GaAs Near the Band Edge.** Proceedings of the MRS 325:389.
29. 1994 Fisher, R.A., N.E. Phillips, D.A. Wright, H.B. Radousky, J.L. Peng, L. Zhang, and R.N. Shelton. **The Specific Heat of YPrBCO : Effects of Pr^3 Singlet-Ground State Ordering and Pr-O Hybridization.** Physica C235-240:1749.
30. 1995 Radousky, H.B., A. Madden, T. Hagler, K. Pakbaz, H. Lorenzana, W.H.W. Lee, G. Fox, and P. Elliker. **Accelerated Degradation Studies of MEH-PPV.** International SAMPE Technical Conference Series 27:1143.
31. 1997 T. J. Goodwin, R. N. Shelton, and H. B. Radousky. **Relating Structural Properties and Oxygen Content to the Electronic and Magnetic States of $\text{Eu}_{1.5}\text{Ce}_{0.5}\text{Sr}_2\text{Cu}_2\text{NbO}_{10}$.** Physica C282-287:745-746.
32. 1998 S. G. Demos, M. Yan, M. Staggs, B. W. Woods, Z. L. Wu, H. B. Radousky and J. J. De Yoreo. **Temperature and Spectral Investigation of Bulk KDP Below Damage Using 355 nm Laser Irradiation.** SPIE 3244:223-227.
33. 1998 B. Woods, M. Yan, J. De Yoreo, M. Kozlowski, and H. B. Radousky. **Photothermal Mapping of Defects in the Study of Bulk Damage in KDP.** SPIE 3244:242-248.
34. 1999 S. G. Demos, M. Staggs, M. Yan, H. B. Radousky and Jim De Yoreo. **Observation of Photoexcited Emission Clusters in the Bulk of KDP and Laser Conditioning under 355 nm Irradiation.** In: Optical Materials for High Power Lasers, A. H. Guenther, Ed. SPIE 3578:509-514.
35. 1999 S. G. Demos, M. Staggs, M. Yan, H. B. Radousky, and Jim De Yoreo. **Investigation of Steady-State and Transient Defect Populations in KH_2PO_4 Subsequent to High Fluence Laser Irradiation.** In: Laser Material Crystal Growth and Nonlinear Materials and Devices, K. I. Schaffers and L. E. Myers, eEds., SPIE, 3610:2-8.
36. 1999 S. G. Demos, H.B. Radousky, and R.R. Alfano. **Subsurface Imaging Using the Spectral Polarization Difference Technique and NIR Illumination.** Optical Tomography and Spectroscopy of Tissue III, B. Chance and R. R. Alfano, Eds., SPIE 3597:406-410.
37. 1999 Hongbing Jiang, Harry W.K. Tom, Ming Yan, H.B. Radousky, Jim DeYoreo, and Stavros Demos, **"Time -resolved studies of laser damage processes in DKDP crystals"**, G. J. Exarhos, A. H. Guenther, M. R. Kozlowski, K. L. Lewis, M. J. Soileau, Eds., SPIE, 3902, 294-298.

38. 1999 S. G. Demos, M. Staggs and H.B. Radousky, "**Damage induced material modification in the bulk KDP crystals**", G. J. Exarhos, A. H. Guenther, M. R. Kozlowski, K. L. Lewis, M. J. Soileau, Eds., SPIE, **3902**, 428-432.
39. 2000 S. G. Demos, M. Staggs, H.B. Radousky, R. R. Alfano, "**Instrumentation for subsurface imaging in a clinical environment**", R. R. Alfano, Ed., SPIE, **3917**, in press.
40. 2000 S. G. Demos, V. Sankaran, M. Staggs, H.B. Radousky, "**Imaging depth and spatial resolution using the SPDI technique**", *Technical Digest, OSA Biomedical Topical Meeting*, pp 197-199.
41. 2000 S. G. Demos, V. Sankaran, M. Staggs, H.B. Radousky, "**Performance assessment of the SPDI subsurface imaging technique**", *Summaries of papers presented in CLEO '00, 2000 Technical Digest Series*, (Optical Society of America, Washington, D. C.), in press.
42. 2000 S. G. Demos, A. Burnham, M. Kozlowski, M. Staggs, H.B. Radousky, "**Spectroscopic investigation of laser-induced material modifications**", *Summaries of papers presented in CLEO '00, 2000 Technical Digest Series*, (Optical Society of America, Washington, D. C.), in press.
43. 2001 C.W. Carr, H.B. Radousky, M. , A.M. Rubenchik and S.G. Demos, "**Time-resolved spectroscopic investigation of emission observed during damage in the bulk of KDP crystals**", G. J. Exarhos, A. H. Guenther, M. R. Kozlowski, K. L. Lewis, M. J. Soileau, Eds., SPIE (in press).
44. 2001 S. Demos, M. Kozlowski, M. Staggs, L. Chase, A. Burnham, H.B. Radousky, "**Mechanisms to Explain Damage Growth in Optical Materials**," G.J. Exarhos, A.H. Guenther, M.R. Kozlowski, K.L. Lewis, M.J. Soileau, Eds., SPIE, 4347, 277, 2001.
45. 2001 S. Demos, M. Staggs, H.B. Radousky, "**Endoscopic Subsurface Imaging in Tissues**," J.A. Conchello, C.J. Cogswell, T. Wilson, Eds., SPIE, 4261, 122, 2001.
46. 2002 N. Nersessian, S. W. Or, G. P. Carman, and H. B. Radousky, "Manufacturing and testing of [1-3] nickel/polymer composites" Proc. SPIE Int. Soc. Opt. Eng. 4699, 445.
47. 2002 C. W. Carr, H. B. Radousky, M. C. Staggs, A. M. Rubenchik, M. D. Feit, and S. G. Demos, "**Time-resolved spectroscopic investigation of emission observed during damage in the bulk of fused silica and DKDP crystals**", Proc. SPIE Int. Soc. Opt. Eng. 4679, 360.
48. 2003 Nersesse Nersessian, Siu W. Or, Gregory P. Carman, Wonyoung Choe, Harry B. Radousky, Vitalij K. Pecharsky, and Alexandra O. Pecharsky, "**Temperature - and magnetic-field-induced phase transformation in bulk and composite $Gd_5Si_2Ge_2$** " Proc. SPIE Int. Soc. Opt. Eng. 5053, 25 (2003)

49. 2003 Christopher W. Carr, T. H. McMillian, Mike C. Staggs, Harry B. Radousky, and Stavros G. Demos, **"Evolution of bulk damage initiation in DKDP"** Proc. SPIE Int. Soc. Opt. Eng. 4932, 429 (2003)
50. 2003 Christopher W. Carr, Harry B. Radousky, and Stavros G. Demos **"Experimental study of wavelength-dependent damage threshold in DKDP"** Proc. SPIE Int. Soc. Opt. Eng. 4932, 385.
51. 2004 Paul DeMange, Christopher W. Carr, Harry B. Radousky, and Stavros G. Demos **"Microscopic characterization of laser-induced damage performance of large-size KDP and DKDP nonlinear crystals"** Proc. SPIE Int. Soc. Opt. Eng. 5337, 47.
52. 2005 DeMange, P., R.A. Negres, H.B. Radousky, and S.G. Demos: **Different Precursor Populations Revealed by Microscopic Studies of Bulk Damage in KDP and DKDP Crystals.** Proceedings of SPIE Int. Soc. Opt. Engineering, 5991: 87.
53. 2005 Negres, R.A., P. DeMange, H.B. Radousky, and S.G. Demos: **Laser Induced Damage in DKDP Crystals Under Simultaneous Exposure to Laser Harmonics.** Proceedings of SPIE Int. Soc. Opt. Engineering, 5991.
54. 2005 DeMange, P., R.A. Negres, C.W. Carr, H.B. Radousky, and S.G. Demos: **A Multi Dimensional Investigation of Laser Conditioning in KDP and DKDP Crystals.** Proceedings of SPIE Int. Soc. Opt. Engineering, 5991: 6.
55. 2005 Negres, R.A., P. DeMange, H.B. Radousky, and S.G. Demos: **Nonlinear Behavior of Laser-Induced Damage in KDP and DKDP Under Multi Wavelength Irradiation.** Proceedings of SPIE Int. Soc. Opt. Engineering, 5710.
56. 2005 Carr, C.W., M.D. Feit, A.M. Rubenchick, P. DeMange, S. Kucheyev, M.D. Shirk, H.B. Radousky, and S.G. Demos: **The Nature of Emission from Optical Breakdown Induced by Pulses of Fs and Ns Duration.** Proceedings of SPIE Int. Soc. Opt. Engineering, 5647: 494.
57. 2005 DeMange, P., R.A. Negres, C.W. Carr, H.B. Radousky, and S.G. Demos: **A New Damage Testing System for Detailed Evaluation of Damage Behavior of Bulk KDP and DKDP.** Proceedings of SPIE, 5647: 343-354.
58. 2006 DeMange, P., R.A. Negres, H.B. Radousky, and S.G. Demos: **Different Precursor Populations Revealed by Microscopic Studies of Bulk Damage in KDP and DKDP Crystals.** Proceedings of SPIE, 5991: 59911X.
59. 2006 Negres, R.A., P. DeMange, H.B. Radousky, and S.G. Demos: **Laser-Induced Damage in DKDP Crystals Under Simultaneous Exposure to Laser Harmonics.** Proceedings of SPIE, 5991: 59911S.
60. 2006 DeMange, P., R.A. Negres, C.W. Carr, H.B. Radousky, and S.G. Demos: **A Multi-Dimensional Investigation of Laser Conditioning in KDP and DKDP Crystals.** Proceedings of SPIE, 5991: 599107.

61. 2006 DeMange, P., R.A. Negres, H.B. Radousky, and S.G. Demos: **Nonlinear Behavior of Laser-Induced Damage in KDP and DKDP Under Multi-Wavelength Irradiation.** Proceedings of SPIE, 5710: 114-119.
62. 2007 DeMange, P., R.A. Negres, H.B. Radousky, and S.G. Demos: **Laser-Induced Defect Reactions Governing Damage Performance in KDP and DKDP Crystals.** Proceedings of SPIE, 6103(610305).
63. 2013 Celliers, P,,Radousky, H. B,... Shock Timing on the National Ignition Facility – First Experiments EPJ Web of Conferences 59, 02004.
64. 2013 Robey, H,,Radousky, H. B,... Shock Timing on the National Ignition Facility – First Precision Tuning Experiments EPJ Web of Conferences 59, 02005.
65. 2013 Kline, J,,Radousky, H. B,... Symmetry Tuning with Megajoule Laser Pulses at the National Ignition Facility EPJ Web of Conferences 59, 02007.

CONTRIBUTED PAPERS

1. 1980 G. S. Knapp, H. B. Radousky, and T. Klippert, **"Heat Capacity Studies of (RE) Rh₄B₄,"** Bulletin of the American Physical Society 25:233.
2. 1981 H. B. Radousky, T. Jarlborg, G. S. Knapp and A. J. Freeman, **"Assessment of Theoretical Determinations of Electron-Phonon Coupling Parameter, g in Metals and Intermetallic Compounds,"** Bulletin of the American Physical Society 26:211.
3. 1982 A. T. Aldred, H. B. Radousky, G. S. Knapp and J. S. Kouvel, **"Superconducting and Magnetic Properties of Y_{0.9}RE_{0.1}Rh₄B₄,"** Bulletin of the American Physical Society, 27:246.
4. 1982 H. B. Radousky, A. T. Aldred, G. S. Knapp and J. S. Kouvel, **"Magnetic Interactions in Y_{1-x}Er_xRh₄B₄,"** Bulletin of the American Physical Society 27:246.
5. 1983 H. B. Radousky, J. W. Downing, A. T. Aldred, G. S. Knapp and A. J. Freeman, **"Magnetic Properties of HfZn₂,"** Bulletin of the American Physical Society 28:249.
6. 1984 H. B. Radousky, A. C. Mitchell, and W. J. Nellis, **"Shock Temperature of CsI,"** Bulletin of the American Physical Society 29:937.
7. 1985 W. J. Nellis, H. B. Radousky, W. C. Moss and A. C. Mitchell, **"Dynamic High Pressure Processing of Materials to one Megabar,"** Bulletin of the American Physical Society 30:580.
8. 1986 W. J. Nellis, H. B. Radousky, T. H. Geballe and M. B. Maple, **"Superconducting Properties of Niobium Recovered from Megabar Shock-Wave Pressure,"** Bulletin of the American Physical Society 31:803.

9. 1986 H. B. Radousky, W. J. Nellis and M. Ross, **"Shock Temperature Measurements in Molecular Fluids,"** Bulletin of the American Physical Society 31:838.
10. 1986 H. B. Radousky, W. J. Nellis and M. Ross, **"Dissociative Phase Transition and Shock Cooling in Liquid Nitrogen at High Temperatures and Pressures,"** Bulletin of the American Physical Society 31:442.
11. 1986 W. J. Nellis, H. B. Radousky, T. H. Geballe, R. Koch and G. W. Hull, **"Superconducting Properties of Nb Films Recovered from Megabar Dynamic Pressure,"** Bulletin of the American Physical Society 31:640.
12. 1986 J. J. Neumeier, M. S. Torikachvili, M. B. Maple, W. J. Nellis, and H. B. Radousky, **"Superconducting Properties of Nb and Nb Compounds Recovered from Megabar Dynamic Pressure,"** Bulletin of the American Physical Society 31:640.
13. 1988 H. B. Radousky and M. Ross, **"Shock Temperature Measurements of Fluid Xe,"** Bulletin of the American Physical Society 33:581.
14. 1988 D. C. Hamilton, W. J. Nellis, N. C. Holmes, H. B. Radousky and M. Nicol, **"The Nature of Uranus Based on Shock-Wave Studies,"** Bulletin of the American Physical Society 33:710.
15. 1989 B. A. Dahling, H. B. Radousky and N. W. Winter, **"High Pressure Studies of Chromium and Vanadium Doped Crystals,"** Bulletin of the American Physical Society 34:966.
16. 1989 T. J. Folkerts, R. N. Shelton, H. B. Radousky and E. M. Larson, **"Physical Property Measurements of $\text{Ba}_{1-x}\text{K}_x\text{BiO}_3$,"** Bulletin of the American Physical Society 34:845.
17. 1989 M. S. Costantino, H. B. Radousky, J. L. Peng and R. N. Shelton, **"Superoxygenation of $\text{Y}_{1-x}\text{Pr}_x\text{Ba}_2\text{Cu}_3\text{O}_{7+y}$,"** Bulletin of the American Physical Society 34:971.
18. 1989 J. L. Peng, R. N. Shelton, H. B. Radousky and M. Costantino, **"Synthesis and Superconducting Properties of the Tetragonal Superconductor $\text{LaBaCaCu}_3\text{O}_{7+w}$,"** Bulletin of the American Physical Society 34:929.
19. 1989 H. B. Radousky, R. Howell, P. Hahn, L. Bernardez, M. Costantino, J. L. Peng, R. N. Shelton, P. Klavins and K. F. McCarty, **"Superconducting and Normal State Properties of $\text{Y}_{1-x}\text{Pr}_x\text{Ba}_2\text{Cu}_3\text{O}_7$,"** Bulletin of the American Physical Society 34:742.
20. 1989 H. B. Radousky, M. Costantino, J. L. Peng and R. N. Shelton, **"Superoxygenation Studies of $\text{Y}_{1-x}\text{Pr}_x\text{Ba}_2\text{Cu}_3\text{O}_{7+w}$,"** MRS Spring Meeting Abstracts, p. 286.
21. 1989 H. B. Radousky, R. S. Glass, P. A. Hahn, M. J. Fluss, J. L. Peng and R. N. Shelton, **"Superconducting Properties and Processing Parameters of $\text{YBa}_2\text{Cu}_3\text{O}_6\text{Br}_x$,"** 2nd International Symposium on Superconductivity, November 14-17, 1989, Tsukuba, Ibaraki, Japan.

22. 1989 H. B. Radousky, N. E. Phillips, R. A. Fisher, R. Caspary, A. Amato, J. L. Peng and R. N. Shelton, **"Magnetic Interactions in $Y_{1-x}Pr_xBa_2Cu_3O_7$: Upper Critical Field and Heat Capacity Studies,"** MRS Fall Meeting.
23. 1989 K. F. McCarty, H. B. Radousky, D. G. Hinks, Y. Zheng, A. W. Mitchell, T. J. Folkerts and R. N. Shelton, **"Electron-Phonon Coupling in Superconducting $Ba_{1-x}K_xBiO_3$: A Raman-Scattering Study,"** Fall MRS Meeting.
24. 1989 H. B. Radousky, R. S. Glass, M. J. Fluss, J. C. O'Brien, B. P. Bonner, C. I. Merzbacher, E. M. Larson and R. G. Meisenheimer, J. C. Peng, R. N. Shelton and K. F. McCarty, **"90 K Superconductivity in Br Doped $Yba_2Cu_3O_{6.2}$,"** Bulletin of the American Physical Society 35:381.
25. 1990 R. H. Howell, J. C. O'Brien, P. Sterne, H. B. Radousky, P. E. A. Turchi, M. J. Fluss, J. C. Peng, T. J. Folkerts, R. N. Shelton and D. G. Hinks, **"Positron Annihilation Life Time Analysis of Superconducting Oxides,"** Bull. of the APS. 35: 482.
26. 1990 T. J. Folkerts, R. N. Shelton and H. B. Radousky, **"Pressure Dependence of Resistivity in $Ba_{1-x}K_xBiO_3$,"** Bull. of the APS, 35:533.
27. 1990 R. N. Shelton, J. Z. Liu, H. B. Radousky, and K. F. McCarty, **"Raman-Active Phonons of a Twin-Free $Yba_2Cu_3O_7$ Crystal: A Polarization Analysis,"** Bull. of the APS, 35:533.
28. 1990 B. A. Dahling, H. B. Radousky and N. W. Winter, **"High Pressure Studies of Cr and V Doped Crystals,"** Bull. of the APS, 35:618.
29. 1990 B. P. Bonner, R. L. Reichlin, S. Martin, H. B. Radousky, T. J. Folkerts and R. N. Shelton, **"Optical Reflectivity of Normal State $Ba_{1-x}K_xBiO_3$ at High Pressure,"** Bull. of the APS. 35:708.
30. 1990 J. A. Tobin, C. A. Olson, J. Z. Ciu, F. R. Solal, J. C. O'Brien, R. H. Howell, H. B. Radousky, M. J. Fluss, C. Gu and P. A. Stern, **"Photo Emission Investigation of the Fermi Surface of Untwinned, Single-Crystal $YBa_2Cu_3O_{6.9}$,"** 37th AVS Symposium and Topical Conferences.
31. 1991 M. J. Fluss, H. B. Radousky, and R. S. Glass, **"Chemical Evidence for Charge Transfer Doping on YBCO: The Case for Halogenation,"** Bull. of the APS, 36: 831.
32. 1991 J. G. Tobin, F. R. Solal, M. J. Fluss, R. H. Howell, J. C. O'Brien, H. B. Radousky and P. A. Sterne, **"Fermi-Edge Photoemission in Single-Domain $YBa_2Cu_3O_{6.9}$,"** Bull. of the APS, 36: 1027.
33. 1991 C. G. Olson, C. Gu and D. W. Lynch, J. G. Tobin, F. R. Solal, M. J. Fluss, R. H. Howell, J. C. O'Brien, H. B. Radousky and P. A. Sterne, **"The Acute Spectral Structure of Single-Domain $Yba_2Cu_3O_{6.9}$,"** Bull. of the APS, 36: 1027.

34. 1991 C. S. Yoo, H. B. Radousky, N. C. Holmes, N. M. Edelstein, **"Electronic Structure of SM^{++} in SrF_2 : Luminescence Probe for Pressure Induced Phase Transitions,"** Bull. of the APS, 36: 891.
35. 1991 R. N. Shelton, J. Z. Liu, H. B. Radousky, **"Temperature Dependence of the Linewidths of the Raman-Active Phonons of $\text{YBa}_2\text{Cu}_3\text{O}_7$,"** Bull. of the APS, 36: 672.
36. 1991 Y. X. Jia, J. Z. Liu, P. Klavins, M. D. Lan, R. N. Shelton, and H. B. Radousky, **"Magnetic and Resistivity Measurements of the Upper Critical Fields in $\text{Y}_{1-x}\text{Pr}_x\text{Ba}_2\text{Cu}_3\text{O}_{7-y}$ Single Crystals,"** Bull. of the APS, 36: 667.
37. 1991 J. C. O'Brien, H. B. Radousky, P. Klavins, D. Mosley, J. Z. Liu, and R. N. Shelton, **"Raman Investigation of Single Crystal $\text{Ba}_{0.6}\text{K}_{0.4}\text{BiO}_3$,"** Bull. of the APS, 36: 525.
38. 1991 A. M. Rao, Y. Wang, X.-X. Bi, J.-G. Zhang, P. C. Eklund, P. P. Nguyen, J. S. Moodera, M. S. Dresselhaus, G. Dressehaus, H. B. Radousky, R. S. Glass, M. J. Fluss, and J. Z. Liu, **"Ab-Plane Optical Properties of Br-Doped YBCO Single Crystals,"** Bull. of the APS, 36: 418.
39. 1992 K. F. McCarty, J. Z. Liu, Y. X. Jia, R. N. Shelton and H. B. Radousky, **"Investigation by Raman Spectroscopy of Phonon line Widths in Single Domain YBCO_7 ,"** Bull. of the APS, 37: 647.
40. 1992 H.B. Radousky, M. Bennahmias, J. C. O'Brien, T.J. Goodwin, P. Klavins, J.M. Link, C.A. Smith, and R.N. Shelton, **"Magnetic, and Structural Characterization of $\text{RBa}_2\text{Cu}_2\text{NbO}_8$ ($\text{R} = \text{Pr}$, La , and Nd)"**Bull. of the APS, 37: 596.
41. 1993 N. Rosov, J. W. Lynn, H. B. Radousky, M. Bennahmias, T. J. Goodwin, P. Klavins, and R. N. Shelton, **"Crystal structure and magnetic ordering of the rare earth and Cu moments in RBCNO ($\text{R} = \text{Nd}$ and Pr)"**,Bull. of the APS, 38: 73.
42. 1993 S. J. Park, J. S. Kouvel, H. B. Radousky and J. Z. Liu, **"Vortex Cross Flux Effect in YPrBCO ,"** Bull. of the APS, 38: 122.
43. 1993 D. E. Barnes, T. J. Goodwin, H. B. Radousky and R. N. Shelton, **"Heat Capacity and Magnetization Study of the Long Range Order in $(\text{PrCe})_2\text{Sr}_2\text{Cu}_2\text{NbO}_{10}$,"** Bull. of the APS, 38: 783.
44. 1993 H. B. Radousky, T.J. Goodwin and R.N. Shelton, **"Absence of Superconductivity in $(\text{Pr}_{1.5}\text{Ce}_{0.5})\text{Sr}_2\text{Cu}_2\text{NbO}_{10}$ — A General Correlation with Magnetic Ordering",** Bull. of the APS, 38: 783.
45. 1993 T. J. Goodwin, R. N. Shelton and H. B. Radousky, **"Role of Pr in the Supression of Superconductivity and the Onset of Magnetism in the Series $(\text{EuCePr})\text{Sr}_2\text{Cu}_2\text{NbO}_{10}$** , Bull. of the APS, 38: 829.

46. 1993 M. J. Bennahias, A. Bello, D. Back, H. B. Radousky, T. J. Goodwin and R.N. Shelton, **"Magnetic and Raman Characterization of Sintered Polycrystalline $R_{1.5}Ce_{0.5}Sr_2Cu_2NbO_{10}$ ($R = Eu, Sm, \text{ and } Nd$) Superconducting Compounds**, Bull. of the APS, 38: 829.
47. 1994 N. E. Phillips, R. A. Fisher, D. A. Wright, H. B. Radousky, L. L. Peng, L. Zhang, T. Goodwin and R. N. Shelton, **"Specific Heat of YPrBCO: Effects of Pr^3 Singlet Ground State Ordering"**, Bull. of the APS, 39: 66.
48. 1994 T. J. Goodwin, D. Gettman, H. B. Radousky, M. D. Lan, J. Z. Liu and R. N. Shelton, **"Detailed Characterization of Pr Magnetism in $(PrCe)_2Sr_2Cu_2MO_{10}$, $M = Nb \text{ or } Ta$ "** Bull. of the APS, 39: 125.
49. 1995 D.J. Erskine, A. Bello, H.B. Radousky, S. Fochs and M. Perry, **"Probe-probe Method for Measuring Dephasing Time in Saturable Absorbing Materials"**, Bull. of the APS, 40:
50. 1995 A.F. Bello, D.J. Erskine, H.B. Radousky, S.N. Fochs, T.R. Ditmire, M.D. Perry, R.P. Mariella, M.A. Emanuel, **"Measurement of the Energy Scattering Time in GaAs and Low-Temperature Grown GaAs Using the Probe-probe Method"**, Bull. of the APS, 40:
51. 1995 H. W. H. Lee, T. W. Hagler, K. Pakbaz, H. B. Radousky, D. D. C. Bradley, and I. H. Campbell, **"Femtosecond Time-Resolved Dynamical Studies of PPV Oligomers"**, Bull. of the APS, 40:
52. 1995 M. J. McIntyre, M. J. Bennahmias T.J. Goodwin, C. C. Hoellwarth, A. F. Bello, C. M. Buford, A. Kebede, R.N. Shelton, and H.B. Radousky, **"Magnetism in $(Pr_{1.5}Ce_{0.5})Sr_2Cu_2Nb_{1-x}Ta_xO_{10}$ "**, Bull. of the APS, 40:
53. 1995 H.B. Radousky, A. D. Madden, K. Pakbaz, T. W. Hagler, H. W. H. Lee, H. E. Lorenzana, G. A. Fox, P. R. Elliker J. C. Scott, J. H. Kaufman, P.J. Brock and R.A. Dipietro **"Accelerated Degradation Studies of MEH-PPV"**, Bull. of the APS, 40:
54. 1995 M. J. Bennahmias, H. B. Radousky, H. E. Lorenzana, T.J. Goodwin, and R.N. Shelton, **"Raman Study of Pr doped $Eu_{1.5}Ce_{0.5}Sr_2Cu_2MO_{10}$ ($M = Nb \text{ and } Ta$) High T_c Superconductors"**, Bull. of the APS, 40:
55. 1995 T. J. Goodwin, H. B. Radousky, R. N. Shelton, **"Calorimetric Study of Pr Ordering and Pr-O Hybridization in $(Eu_{1.5-x}Pr_xCe_{0.5})Sr_2Cu_2NbO_{10}$ "**, Bull. of the APS, 40:
56. 1995 T. W. Hagler, K. Pakbaz, H. B. Radousky, H. W. H. Lee, I. H. Campbell and J. P. Ferraris, **"Temperature Dependence of the Optical and Electrical Properties of Light Emitting Conjugated Polymers**, Bull. of the APS, 40:

57. 1995 M. Lipp, H. E. Lorenzana, J. E. Klepeis, and H. B. Radousky, "**High Pressure Raman Measurements of PbF_2** ", Bull. of the APS, 40: 668.
58. 1996 D. G. Sutherland, H. B. Radousky, et al., "**Bond Order and Damage Mechanism in Light Emitting MEH-PPV Polymer Films Determined with NEXAFS**," Bull. of the APS, 41:396.
59. 1996 M. Yan, H. B. Radousky et al., "**Impurity Defects in Fast Grown KDP Crystals**," Bull. of the APS, 41:139.
60. 1996 H. B. Radousky, M. Yan and J. J. De Yoreo, "**Luminescence Studies of Fast Grown KDP Crystals**, Bull. of the APS, 41:139.
61. 1997 S. G. Demos, B. Woods, M. Yan, M. Staggs, H. B. Radousky, J. De Yoreo, Z. Wu, "**Temperature and Spectral Investigation of Bulk KDP Below Damage Using 355 nm laser Irradiation**," M-B4, XXIX Annual Symposium on Optical Materials for High-power Lasers, Boulder, Colorado, October 6-8, 1997.
62. 1998 S.G. Demos, M. Yan, M. Staggs, H.B. Radousky and J. J. De Yoreo, "**Microscopic Spectral Imaging of Defect Centers in KDP**", *Nonlinear Optics '98, Materials, Fundamentals and Applications*, MC14, 9-14 August 1998, Princeville, Kauai, Hawaii.
63. 1998 S.G. Demos, M. Staggs, M. Yan, H.B. Radousky, J. De Yoreo, "**Observation of Photo-excited Emission Clusters in the Bulk of KDP and Laser Conditioning Under 355 nm Irradiation**," *M-B4 XXX Annual Symposium on Optical Materials for High-power Lasers*, Boulder, Colorado, September 28-October 1, 1998.
64. 1998 S.G. Demos, H.B. Radousky and R.R. Alfano, "**Subsurface spectral polarization imaging using NIR laser illumination**", *Optical Society of America, 1998 Annual Meeting*, TuZ2, Baltimore, Maryland, October 4-9, 1998.
65. 1998 S.G. Demos, M. Yan, M. Staggs, H.B. Radousky and J. De Yoreo, "**Investigation of photo-excited defect clusters in KDP using microscopic fluorescence imaging**," *Optical Society of America, 1998 Annual Meeting*, TuZ4, Baltimore, Maryland, October 4-9, 1998.
66. 1999 H. B. Radousky, S. G. Demos, M. Staggs, M. Yan, and J. De Yoreo, "**Defect clusters and transient defect populations in KH_2PO_4** ", in *Defects: Doping and Microstructure*, JC30-5 APS 1999 Centennial Meeting, Atlanta, Georgia, March 20-26, 1999.
67. 1999 S.G. Demos, H.B. Radousky, M. Staggs, M. Yan, and J. De Yoreo, "**Investigation of high-power laser conditioning of defect clusters in KH_2PO_4 using microscopic fluorescence imaging**", in *Defects: Doping and Microstructure*, JC30-6 APS 1999 Centennial Meeting, Atlanta, Georgia, March 20-26, 1999.
68. 1999 Rezik Agbaria, Ming Yang, Kenneth Turteltaub, Harry Radousky, "**Fluorescence Characteristics of PHIP**," Bull. of the APS [BC32.02] APS 1999 Centennial Meeting, Atlanta, Georgia, March 20-26, 1999.

69. 1999 S.G. Demos, H.B. Radousky and R.R. Alfano, "**Subsurface imaging using the Spectral Polarization Difference technique and NIR illumination**," 3597-46, Optical Tomography and Spectroscopy of Tissue III, BIOS '99, San Jose, California, January 23-29, 1999.
70. 1999 S.G. Demos, M. Staggs, M. Yan, H.B. Radousky, J. De Yoreo, "**Investigation of Steady-state and Transient Defect Populations in KH₂PO₄ Subsequent to High Fluence Laser Irradiation**," Laser Material Crystal Growth and Non-linear Materials and Devices, 3610-04 LASE '99, San Jose, California, January 23-29, 1999.
71. 1999 H.B. Radousky, S.G. Demos, M. Staggs, and J. De Yoreo, "**Defect cluster dynamics in KH₂PO₄**", WLL19, Optical Society of America 1999 Annual Meeting, Santa Clara, California, September 26-October 1, 1999.
72. 1999 S.G. Demos, M. Staggs, H.B. Radousky, "**Damage-induced Material Modification in the Bulk KDP Crystals**," XXXI Annual Symposium on Optical Materials for High-power Lasers, Boulder, Colorado, October 4-7, 1999.
73. 2000 H.B. Radousky, M. Staggs, and S.G. Demos, **High Temperatures and Materials Modification in KDP Induced by Laser Irradiation**, Bull. of the APS [A18.08] APS 2000 Centennial Meeting, Minneapolis, MN March 19-25, 2000.
74. 2000 S.G. Demos and H.B. Radousky, "**1-cm depth subsurface optical imaging in tissues using spectral and polarization filtering**," Bull. of the APS [Y13.04] APS 2000 Centennial Meeting, Minneapolis, MN March 19-25, 2000.
75. 2000 S.G. Demos, H.B. Radousky, R.R. Alfano, "**A prototype instrument for subsurface imaging in a clinical environment**", 3917-10, Photonics West, BIOS 2000, Optical Biopsy III, San Jose, California, January 22-28.
76. 2000 S.G. Demos, V. Sankaran, M. Staggs, H.B. Radousky, "**Performance assessment of the SPDI subsurface imaging technique**", CLEO, San Francisco, California, MAY 7-12, 2000.
77. 2000 S.G. Demos, A. Burnham, M. Kozlowski, M. Staggs, H.B. Radousky, "**Spectroscopic investigation of laser-induced material modifications**", CLEO MAY 7-12, 2000, San Francisco, California.
78. 2000 S.G. Demos, V. Sankaran, M. Staggs, H.B. Radousky, "**Imaging depth and spatial resolution using the SPDI technique**", MB6, Advances in Optical Imaging and Photon Migration, OSA Biomedical Topical Meetings, Miami Beach, Florida, April 2-5.
79. 2000 S.G. Demos, M. Staggs, H.B. Radousky, R. Gandour-Edwards, R. deVere White, "**Optical Spectroscopy Detection and Imaging of Cancer**," 6th Annual Cancer Research Symposium, UC Davis Cancer Center, Sacramento, California, October 6-7, 2000.
80. 2000 S.G. Demos, M. Staggs, H.B. Radousky, L. Chase, M. Kozlowski, "**Mechanisms to Explain Damage Growth in Optical Materials**," XXXII Annual Symposium on Optical Materials for High-power Lasers, C-4, Boulder, Colorado, October 16-18, 2000.

81. 2000 M.R. Kozlowski, M. Staggs, H.B. Radousky, **"Micro-spectroscopy investigation of laser induced damage initiation and growth in optical materials,"** *Optical Society of America Annual Meeting*, Rhode Island Convention Center, Providence, Rhode Island, October 22-26, 2000.
82. 2001 C.W. Carr, H.B. Radousky, S.G. Demos, M. Staggs, **"Laser-induced Reactions of Defect Nano-Clusters,"** Bull. of the APS [N8.006] *APS 2001*, Seattle, Washington, March 12-16, 2001.
83. 2001 H.B. Radousky, C.W. Carr, S.G. Demos, M. Stagg, **"Plasma Formation During Laser-induced Damage in Optical Materials,"** Bull. of the APS [Z14.007] *APS 2001*, Seattle, Washington, March 12-16, 2001.
84. 2001 Qing Zhang, Nicholas Kioussis, Stavros Demos, Harry Radousky, **"Ab initio study of the electronic structure and phase transition in KDP,"** Bull. of the APS [W8.010] *APS 2001*, Seattle, Washington, March 12-16, 2001.
85. 2004 A.E. Berkowitz, Jung-Il Hong, H.B. Radousky, **"Magnetostrictive Nanoparticles Produced by Spark Erosion,"** Bull. of the APS [V23.009] *APS 2004*, Montreal, Canada, March 20-24, 2004.
86. 2004 Nersesse Nersessian, Vitalij Pecharsky, Harry Radousky, Gregory Carman **"Large Power Generation in $Gd_5Si_2Ge_2$ and Piezoelectric Laminates,"** Bull. of the APS [J39.006] *APS 2004*, Montreal, Canada, March 20-24, 2004.
87. 2004 H. B. Radousky, C.W. Carr, Rubenchik, M.D. Feit, S.G. Demos **"Temperature Measurements of Laser Induced Plasma in Wide Gap Dielectrics,"** Bull. of the APS [D21.007] *APS 2004*, Montreal, Canada, March 20-24, 2004.
88. 2004 Nersesse Nersessian, Vitalij Pecharsky, Harry Radousky, Gregory Carman **"Large Power Generation in $Gd_5Si_2Ge_2$ and Piezoelectric Laminates,"** Bull. of the APS [J39.006] *APS 2004*, Montreal, Canada, March 20-24, 2004.
89. 2005 Nersessian, Nersesse, Vitalij Pecharsky, Harry Radousky, Scott McCall, and Gregory Carman. **Thermoelectric and Magnetoelectric Behavior in $Gd_5Si_2Ge_2$ and Piezoelectric Laminates.** Bulletin of the APS [X15.00009] *APS 2005*, Los Angeles, CA, March 21-25, 2005.
90. 2006 DeMange, P., R.A. Negres, H.B. Radousky, and S.G. Demos. **Laser- Induced Defect Reactions Governing Damage Performance in KDP and DKDP Crystals.** OSA Conference on Lasers and Electro-optics in KDP and DKDP Crystals.
91. 2006 DeMange, P., R.A. Negres, N.P. Zaitseva, H.B. Radousky, and S.G. Demos. **Correlation of Laser-Induced Damage Performance to Crystal Growth Conditions in KDP and DKDP Crystals.** SPIE Photonics West, Lasers and Applications in Science and Engineering, San Jose, CA, January 2006.

92. 2011 H. B. Radousky, H. F. Robey, K. Widmann, J. D. Moody, O. L. Landen, "**Shock Timing and Radiation Temperature in National Ignition Campaign Holhraum Tuning Experiments using the Dante X-Ray Spectrometer**", 17th APS Shock Compression of Condensed Matter Conference Chicago, IL 06/26/2011 through 07/01/2011
93. 2014 Yemaya Candace Bordain, Manas Gartia, Harry B. Radousky, Brent R Trenhaile, Lisa Plucinski, Yi Chen, Gang Logan Liu,, "Light Powered Electric Double-Layer Tuning For Desalination Using Nanostructure Arrays In Silicon Solar Cells", Spring MRS Meeting San Francisco April 21-25.
94. 2014 Harry Radousky, Fang Qian, Yonghao An, Denise (Zhidan) Zeng, Gongming Wang, Yat Li, Yimin (Morris) Wang, "Harvesting Mechanical and Thermal Energy by Combining ZnO Nanowires and NiTi Shape Memory Alloy", Spring MRS Meeting San Francisco April 21-25.
95. 2014 H. B. Radousky, "Energy Harvesting: An Integrated View of Materials, Devices and Applications", Nanomaterials for Industry, San Diego, CA April 7-9.

SEMINARS AND INVITED TALKS

1. "**Magnetic Superconductors, A Study in Conflict and Compromise,**"
Invited talk given at LLNL, August 6, 1982.
2. "**Temperature Measurements in Shock Compressed Materials,**"
Invited talk given at the ACS Meeting, Albuquerque, NM, June 6, 1984.
3. "**High Pressure Positron Measurements of Fe in a Diamond Anvil Cell,**"
Seminar given at Université de Geneve, Geneva, Switzerland, Sept. 9, 1984.
4. "**Emission Spectroscopy of Shock Compressed Materials,**"
Invited talk given at the ACS Meeting, Chicago, IL, Sept. 8-13, 1985.
5. "**Optical Emission Spectroscopy of Shocked Materials,**"
Invited talk-1986 Gordon Conference on Research at High Pressures, Meriden, NH, June 23-27, 1986.
6. "**Shock-Induced Cooling in Dense Fluids,**"
Invited talk given at the 1987 Shock Wave meeting, Monterey, CA, July 20-23, 1987.
7. "**Shock-Induced Cooling in Dense Fluids,**"
Seminar given at the University of Illinois, Chicago Department of Physics on October 14, 1987.
8. "**Shock Wave Studies of Dense Fluids,**"
Seminar given at the University of California, Davis Department of Physics of December 3, 1987.
9. "**Shock-Induced Cooling in Dense Fluids,**"
Colloquium at the University of California, Davis Department of Applied Science on December 9, 1987.
10. "**Phase Transitions at Ultra High Pressure,**"
Seminar given at Emory University, Department of Physics, May 13, 1988.
11. "**Preparation and Superconducting Properties of Single Phase $Y_{1-x}Pr_xBa_2Cu_3O_7$,**"
Invited talk at the 7th DOE Informational Meeting on High T_c Superconductors, January 19, 1989.
12. "**Flux Creep in High T_c Superconductors,**"
Solid State Physics Seminar given at UC-Davis, Department of Physics, April 12, 1989.
13. "**Modification of Superconducting Properties by Elemental Substitutions,**"
Seminar at University of Tokyo, November 7, 1989.

14. **"Recent Results on $Y_{1-x}Pr_xBa_2Cu_3O_7$ and Other Stories,"**
Seminar given at Argonne National Laboratory on March 30, 1990.
15. **"Superconducting Properties of High T_c Oxides,"**
Colloquium given at University of California, Davis, Department of Applied Science on April 3, 1990.
16. **"High T_c Superconductivity,"**
Invited lecture at the LLNL/UC-Davis Summer Institute in Applied Physics, August 13-24, 1990.
17. **"Destruction of Superconductivity in $Y_{1-x}Pr_xBa_2Cu_3O_7$,"**
Colloquium given at University of Illinois, Chicago on April 3, 1991.
18. **"High T_c Superconductivity"**
Invited lecture at the LLNL/UC-Davis Summer Institute in Applied Physics, June 12, 1991.
19. **"Destruction of Superconductivity in $Y_{1-x}Pr_xBa_2Cu_3O_7$,"**
Colloquium at University of California, Davis, Applied Science Department on February 11, 1992.
20. **"Destruction of Superconductivity in $Y_{1-x}Pr_xBa_2Cu_3O_7$,"**
Colloquium given at University of California, Davis, Department of Physics, on February 21, 1992.
21. **"Introduction to High T_c Superconductivity",**
Seminar at Chabot College, Hayward, CA, June 1, 1992.
22. **"Effects of f-electron hybridization in YPrBCO and related structures",**
Solid State Seminar, The Israeli Institute of Technology (Technion), December 29, 1992.
23. **"Superconductivity and Magnetism in Three Related Structures,**
Colloquium given at University of Illinois, Chicago, April 9, 1993.
24. **"Introduction to High T_c Superconductivity",**
Seminar at Chabot College, Hayward, CA, May 20, 1993.
25. **"Superconductivity and Magnetism in 3 Related Structures, PrBCO, PrBCNO and PrCeSCNO",**
Northwestern University, June 24, 1993.
26. **"Superconductivity and Magnetism in 3 Related Structures, PrBCO, PrBCNO and PrCeSCNO",**
Invited talk at the 2nd International Conference on f-elements, Helsinki, Finland, August, 1994.
27. **"Introduction to High T_c Superconductivity",**
Colloquium speaker at the University of San Francisco, November 3, 1994.
28. **"Introduction to High T_c Superconductivity",**
Colloquium speaker at the California State University, Hayward, January 20 1995.
29. **"Femtosecond Spectroscopy in Biophysics",**
Invited talk at the LLNL/UC-Davis Biotechnology Collaboration Forum, February 10, 1995.
30. **"Superconducting and Magnetic Properties in RPrCeSCNO",**
Invited talk-Int. Conf. on Superlat., Microstruct. and Microdevices Cincinnati, Ohio August 22, 1995
31. **"Laser Induced Damage in Non-Linear Optical Crystals",**
Colloquium speaker at Purdue University, March 6, 1998.
32. **"Laser Induced Damage in KDP Crystals",**
Colloquium speaker at California State University, Northridge, April 1, 1998.
33. **"Research within the University/LLNL Institutes",**
Invited speaker-National Physical Science Consortium Annual Meeting, San Diego, Ca, May, 1998.
34. **"Time-resolved studies of laser damage processes in KDP crystals",**
30th Annual symp.on optical materials for high power lasers, Boulder, Colorado, October 4-7, 1999.
35. **"Deep Sub-Surface Imaging for Cancer Detection",**
UC-Davis Physics Department Student Seminar Series, Davis, Ca, May 23, 2000.
36. **"Laser-induced Damage in KDP and other Examples of Research in the LLNL Institutes",**
University of Alaska, Fairbanks, May 3, 2001.

37. **"Understanding Laser Damage in Optical Materials – A Journey From Materials Science To Plasma Physics**, UC-Davis Physics Department Seminar, June 6, 2002.
38. **"Magnetostrictive Materials for Actuator and Energy-Harvesting Applications"**
Colloquium at Pacific Northwest National Laboratories, September 7, 2004.
39. **"Research Opportunities for Students at LLNL"**
Seminar at UC-Santa Cruz, November 2, 2004.
40. **"Magnetostrictive Materials for Actuator and Energy-Harvesting Applications"**
Colloquium at California State University, Northridge, February 10, 2005.
41. **"Research Opportunities for Students at LLNL"**
Seminar at UC-San Diego, May 26, 2005.
42. **"Research Opportunities for Students at LLNL"**
Seminar at UC-Davis, June 14, 2005.
43. **"Research Opportunities for Students at LLNL"**
Seminar at UC-Berkeley, June 1, 2006.
44. **"The Science and Technology of the National Ignition Facility (NIF)"**.
Physics Department Colloquium, California State University, Northridge, April 30, 2008.
45. **"A Journey from Shock Physics to Optical Materials and Back Again"**
30 Year Career Retrospective, LLNL B–Division Seminar, December 7, 2011
46. **"Energy Harvesting"**
LLNL Condensed Matter and Materials Division Seminar, January 21, 2013.
47. **"Perspectives on Working at a DOE National Lab"**
UIUC BioNanotechnology Seminar Series, October 22, 2013
48. **"Energy Harvesting, an integrated view of materials, devices and applications"**
Invited seminar at Texas A&M Mechanical Engineering Seminar Series, November 22, 2013.
49. **"Energy Harvesting, an integrated view of materials, devices and applications"**
Invited talk at Nano Technology for Industry Conference, San Diego, Ca, April 7, 2014.

Grants and Contracts (1996 – Present)

Title: "Development of First-Principles Experimental Methods to Determine the Physical Properties of Matter Under Extreme Conditions,"

Agency: DOE/UCLA

Amount: \$45,000

Date(s): 2013 - 2016

PI/Co-PI: UC-Davis Principal Investigator

Title: "In-situ Solar Powered Nano-Porous Desalination,"

Agency: Illinois Applied Research Institute

Amount: \$48,000

Date(s): 2014 - 2014

PI/Co-PI: LLNL Principal Investigator (visiting Scientist at the ARI)

Title: "Travel Support for Professional Research and Teaching Leave at UIUC,"

Agency: UIUC

Amount: \$25,000

Date(s): 2013 - 2014

PI/Co-PI: Principal Investigator

Title: Energy Harvesting Using Nanowires

Agency: LLNL

Amount: \$100,000

Date(s): 2012 - 2012

PI/Co-PI: Principal Investigator

Title: Travel Grant to Support MRS Spring (April 2011) Meeting in Energy Harvesting

Agency: NSF

Amount: \$5,000

Date(s): 4/2011 - 4/2011

PI/Co-PI: Co-Investigator, Dr. Hong Liang of Texas A&M (Principal Investigator)

Title: NER: Multifunctional Magnetic Nanoparticles for Materials and Bio-Science

Applications

Agency: NSF

Amount: \$100,000

Date(s): 2005 - 2006

PI/Co-PI: Co-Investigator, Dr. Susan Kauzlarich UC Davis (Principal Investigator)

Title: Characterization and Control of Laser-Induced Modifications in KDP and DKDP Crystals

Agency: LLNL

Amount: \$300,000

Date(s): 2005 - 2006

PI/Co-PI: Co-Investigator, Dr. Stavros Demos (Principal Investigator)

Title: Synthesis and Magnetostrictive Properties of Ferromagnetic Nanoparticles

Agency: University of California, Campus Laboratory Exchange (CLE) Program

Amount: \$90,000

Date(s): 9/1/2003 - 9/30/2005

PI/Co-PI: Co-Investigator, Dr. Susan Kauzlarich UC Davis (Principal Investigator)

Title: Investigation of the Damage Initiation and Propagation Process

Agency: LLNL

Amount: \$200,000

Date(s): 2002 - 2003

PI/Co-PI: Co-Investigator, Dr. Stavros Demos (Principal Investigator)

Title: Laser Plasma Interactions in KDP Crystals

Agency: LLNL

Amount: \$140,000

Date(s): 2002 - 2002

PI/Co-PI: Co-Investigator, Co-Investigator, Dr. Stavros Demos (Principal Investigator)

Title: Exchange-Coupling in Magnetic Nanoparticles Composites to Enhance Magnetostrictive Properties

Agency: LLNL

Amount: \$592,000

Date(s): 2001 - 2004

PI/Co-PI: Principal Investigator

Title: Medical Imaging for Cancer Detection

Agency: California Department of Health Services

Amount: \$1,200,000

Date(s): 1999 - 2002

PI/Co-PI: Co-Investigator, Dr. Stavros Demos (Principal Investigator)

Title: Ultrafast Dynamics of Plasma Formation and Optical Materials Modifications

Agency: LLNL

Amount: \$534,000

Date(s): 1999 - 2002

PI/Co-PI: Co-Investigator, Dr. Stavros Demos (Principal Investigator)

Title: Center for Laser Imaging and Cancer Diagnosis

Agency: DOE

Amount: \$100,000

Date(s): 1998 - 2000

PI/Co-PI: Principal Investigator

Title: Time-Resolved Spectroscopy for the Study of Heterocyclic Amine Carcinogen Interactions with DNA

Agency: LLNL

Amount: \$50,000

Date(s): 1997 - 1997

PI/Co-PI: Principal Investigator

Title: Time-Resolved Raman and Photothermal Deflection Studies of Laser Induced Heating and Damage in NIF-Related Optical Materials

Agency: LLNL

Amount: \$450,000

Date(s): 1996 - 1999

PI/Co-PI: Principal Investigator

April 20, 2015